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Illustrations.

Owen Jones Prize Drawings, R.I.B.A.: Decorations in the Castle of St. Angelo, Rome. Drawn by Mr. A. W. Bellis.

Illustrations to Carpenters' Hall Lectures: Candelabra and Decorative Sculpture on the Pont Alexandre III., Paris.

Bolton Improvements: Proposed Scheme by Mr. T. H. Mawson and Mr. R. Atkinson.

An Italian Landscape. By Gaspar Poussin (1613-1675).
(National Gallery, London.)

ARCHITECTURE IN PAINTINGS.

THE subject of Professor Selwyn Image's paper at the Architectural Association on Monday evening has perhaps scarcely more than an academic sort of interest for architects, but it was none the less interesting on that account. It is, in fact, a subject which more definitely concerns painters than architects, although it is as irritating for an architect to see an architectural subject badly handled by a painter as it is for any artist in any sphere of art to see his work falsely interpreted in another form of art. Professor Image in his delightful discourse touched upon seven manners in which painters of the past have approached architecture, and we daresay he might have indulged in further enumeration. We are, however, content with a couple of sub-divisions; for examples like the paintings at the Sistine Chapel were, to our thinking, a little beside the point. For these are not architecture in paintings, but paintings in architecture, a totally different matter. Our sub-divisions would be concerned with architecture when it is treated as the subject, and when it is treated as accessory to the subject—as the *mise en scène*, as it were. For we cannot take into account in any architectural sense the thatched cottage and tumbledown bits which landscape painters, rarely the greatest landscape painters, introduce into their pictures for the sake of balance in form or colour. With regard to this type, we have been often struck by the fact that the great painters of the Barbizon School—Millet, Rousseau, and Corot—seldom use the sentimental device of an irregular or dilapidated habitation of a humble sort to give greater effect to their landscapes. They are content with a simpler, a more imaginative composition. It is not quite so with the Dutch painters; but here again the Dutch feeling, shall we say, for precision in building, whatever its type or character, saves them from shocking architectural taste in these matters. Moreover, the Dutch, to a greater extent even than the early Italian painters, discovered that light and atmosphere play upon the texture and surface, upon the planes and heights, of a building, with as great and as subtle pictorial effect and variety as upon the surfaces of the more various forms with which Nature provides us. These are, however, small matters. We do not object to a discreet use of the adventitiously picturesque objects which strike a painter's eye. He is welcome to them. Our only point in this regard is that if this sort of seeing becomes a formula, as it promises to do among artists, it is likely to influence public taste and to create a feeling for the obviously picturesque in building instead of a feeling for rhythmical design, which is the basis of all good architecture, and which should not be less but more congenial to those in search for artistic—shall we also say emotional?—effect.

For the rest, if we take a more general view of the delineation of architecture in paintings, from the time of the *primitifs* to our own day, we are glad to admit that architecture has generally been adequately handled. Indeed we might point to many painters, both ancient and modern, who, though not architects

themselves, have produced work which has been a source of inspiration for architects. A painter with a knowledge of architectural form, with a sense of the scale and proportion which constitute fine architectural design—a painter, that is, who possesses a gift for depicting all the external display, the imaginative quality of fine building—is provided with an opportunity for artistic expression which is denied to the architect. He can, for instance, build castles in the air, as Hubert Robert did, and find profit in them; he may project on canvas architectural forms to the utmost extent of his imagination, without let or hindrance from client, committee, assessor, or conditions of competition. And such men have been by no means rare in painting. Mantegna, Titian, Tiepolo, Paul Veronese amongst the early Italians; Memlinc, Massys, Vermeer, and Gerard Dou amongst the painters of the Low Countries; Poussin and Claude amongst the French occur to the mind at once as men who had a just and imaginative sense of architectural design. In later times we have many others, both in France and England—Ingres, of all men; Turner, with his spacious feeling for architectural composition; and still later painters whose works may be seen either in Paris or London in galleries devoted to modern work.

Professor Selwyn Image has enlightened us on many points with regard to architecture in paintings. During the period of the Italian Renaissance history provides us with men endowed with equal gifts for both the arts. Instances, however, are rare in which we find the artist turning from the free medium of the brush and colour to the sterner method and materials which are employed in the practice of architecture. Yet the dual gift still exists. The modern painter may not be an architect, but the modern architect is not infrequently a painter. And his work in this respect might form the subject of an interesting paper at the Architectural Association.

ARCHITECTS AND SCULPTORS.

CONSIDERABLE progress has been made of late years towards a better understanding between architects and sculptors and towards the ultimate recognition of these two arts as one.

In his recent lecture on "Decorative Sculpture" Professor W. R. Colton, A.R.A., made an interesting contribution to contemporary thought, and in so doing contrived to refer incidentally to several topics of current interest.

On the question of the memorial to the late King we are glad to see that he took the opportunity to emphasise the artistic aspect of the question that a memorial to the dead was an end in itself and needed no justification on the score of practical utility; that it should be a gift, an offering of sacrifice to the dead, free of all suspicion of benefit to the giver. Consequently all schemes of public utility are under the suspicion of being prompted by a view to our own ultimate benefit.

In his reference to St. Paul's Bridge he did good service by pointing out that whatever line the bridge might take the buildings round St. Paul's should be cleared away to give the Cathedral a proper setting.

It is as well to have these points put forward and supported by academic authority.

When, however, Mr. Colton goes on to discuss the new entrance to the Mall, and regrets that we could not be content to create a fine processional arch, but, prompted by a spirit of utilitarianism, must needs use it as a residence, he seems to miss the point that it would be quite a legitimate treatment to regard it as the entrance gate with the warders' lodgings over it—the entrance gateway to the house of the Sovereign with the Lords of the Admiralty as the warders.

In his concluding plea for sculpture in our streets—where its influence could be brought home to the general public—rather than in galleries and museums Mr. Colton touches on a question as to which architects and sculptors have not yet arrived at a complete understanding.

From the architectural standpoint it is hardly possible to conceive of sculpture except in relation to a building or to some ordered arrangement of outdoor surroundings and setting of which the sculpture forms a part, which setting must naturally influence its conception and treatment. The building with its sculptured or coloured decoration, its surroundings and approaches form one complete conception, and there is no room for sculpture either inside or out that is not related to it and subordinated to the general idea.

Sculpture designed in space, so to say, with no relation to anything but its own unity of conception, seems isolated and removed from the facts of life, and to require to be related in some way or other with the rest of the universe.

If, however, its ideal is to preserve its own unity of conception and to detach itself from its environment, it seems to need some equivalent for the gilt frame by which the easel picture is deliberately cut off from its surroundings and seems to definitely assert that the lack of relation to its environment is the object at which it aims.

To create independent groups of statuary for exhibition galleries, with no knowledge of their ultimate destination and environment, seems to us a somewhat futile proceeding, and we cannot help regretting that so many competent sculptors still continue to expend their energies in this direction and, regarding this as the highest form of their art, still retain the tendency to regard architectural sculpture as pot-boiling. While this tendency lasts we shall get no fine architectural sculpture nor any real unity in the arts.

In advocating the outdoor treatment of sculpture, and in deprecating its exclusive confinement to galleries and museums, Mr. Colton seems to lean towards the architectural point of view, but we should have liked to see him go a little further and boldly uphold the view that the plastic arts need no exhibition—their exhibition gallery is the street—and that the finest sculpture is that which takes its place in the general scheme and is most intimately related to its environment.

The difficulty many sculptors seem to feel in accepting this standpoint is that it entails a subordination undermining their independence as creative artists. We must say we feel a little doubtful as to the reality and the origin of this feeling.

We cannot help a suspicion that many of the allegorical groups which are exhibited in our galleries are inspired quite as much by the sculptor's desire to obtain recognition as by an overwhelming necessity for the expression of the particular subject chosen, and that the subjects themselves might as often as not be just as well expressed in literature or painting.

If sculptors must produce such unrelated and irresponsible work the liberty that has degenerated into licence may be necessary for them, but if they are willing to confine themselves to their own sphere, to the ideas that cannot be expressed in any other art but sculpture, they would find no loss of independence in working within the limits of the laws of architectural expression.

To take one's part in a combined effort for the creation of a finer effect than can be achieved by any one individual uplifts the imagination, it does not cramp it. On the contrary, it is a call on one's resources. The difficulty is to answer to the call and rise to the occasion.

Sculpture seems to gain in value by being properly related to its environment, not to lose. The sculptor perhaps may stand to lose something of personal notoriety by combining in a common effort. But that is not a question of art, but of human nature.

NOTES.

The London Memorial to Edward VII.

IT is impossible to feel much regret that the Committee's scheme for the above memorial has now been abandoned. While the first steps of the Advisory Committee were judicious enough, and their first idea as to the form of a monument suited to the position a reasonable one, they made the mistake of allowing this to be overridden by the sculptor whom they invited to carry out the work. Though there are, without a doubt, other sites superior to the one selected, we think a striking and interesting monument could have been placed on this without detriment to the effect of the Park, and that it was mainly the exposition of the sculptor's most unsuitable conception which provoked the torrent of criticism as to the destructive influence it would exercise on the character of St. James's Park. We presume that the Committee will now have to make a fresh start, and we trust that when they have found another site they will not repeat the mistake of placing themselves in the hands of a single sculptor to interpret their schemes, but will institute an open competition, the only suitable method, in the circumstances, of ensuring that all the possibilities in the way of securing that the memorial shall be, both in character and in architectonic treatment, the best we can produce.

Ecclesiastical Painting.

MR. TRISTRAM, at a meeting of the Tempera Society on Tuesday last, exhibited a large number of drawings from the wall paintings in our mediæval churches. It is not generally realised what an immense amount of painted work covered the walls of our churches previous to the Reformation and how much of this is still in existence, though possibly in a more or less damaged state. As Professor Lethaby pointed out, it was customary to cover the whole interior with decoration in one form or another, and, while the work of English painters was influenced by Byzantine and subsequently by Italian work, there is much possessing marked interest and definite character. Mr. Tristram's valuable labours in reproducing typical examples and his remarks on the mass of work still but little known elicited the view that the work of recording such scattered treasures should be taken in hand by an influential society or by the Government. We fear that the latter alternative is too much to expect, but the subject is of so great an interest and artistic value that it would well repay the attention of one of our archæological societies.

Pope's Villa, Twickenham.

THIS property, now placed in the market, comprises the house which stands close to the site, within the grounds, of the riverside villa wherein Pope passed the latter twenty-five years of his life. He bought a life interest in the property which ultimately passed, by purchase, to Sophia, Baroness Howe, of Langar, eldest daughter of the famous admiral Lord Howe. Lady Howe pulled down the house and built its successor. Pope's "Egerian grot where, nobly pensive, St. John sat and thought," forms a passage beneath the high road to Teddington. About fifteen years ago, in the course of some alterations made for Mr. H. Labouchere, M.P., was found over one of the entrances, a stone covered with concrete; the removal of the coating revealed a deeply-cut inscription: "On this spot stood until 1809 the house of Alexander Pope. The grotto that formed its basement still remains. 1848." By the northern boundary of the grounds is "Stanhope's cave," named after Sir William Stanhope, who enlarged the old house and the gardens. John Serle, Pope's gardener, published in 1745 a pamphlet with a plan of the grounds as in his master's time, a view of the grotto, and a catalogue of its ores, stones, and spars, with the names of the donors of the specimens.

PICTURE EXHIBITIONS:
THE R.I. AND GOUPIL GALLERY.

A CERTAIN spirit of archaicism prevails at the Exhibition of the Royal Institute of Painters in Water-Colours. This is the hundred and second exhibition and age is beginning to tell. The average type of picture reminds one of the subjects which were most popular at the Royal Academy some ten or fifteen years ago. The sentimental-anecdotal, or the historico-anecdotal, picture is in abundance. The majority of the works, that is to say, aim definitely at an appeal which is not in the first instance a painter's appeal, but one which postulates a certain obvious kind of sentiment in the spectator. With pictures of sufficient merit that may be largely a matter of indifference. There are, however, out of some five hundred exhibits a sufficient number to make the exhibition as a whole an interesting one. And among the first of these is, in our opinion, Mr. Dudley Hardy's "Between the Showers—Landing Fish on a French Quay." Mr. Arthur Severn in "A Sunlit Haze" achieves a sort of Turneresque brilliancy in sunlight effect; while Mr. Spenlove-Spenlove depicts a moonlight atmosphere in which there is more dash (in which one seems to discover the manner of earlier painters) than romance. Mr. A. D. McCormick is unaffectedly dramatic, and various other painters express with much vivacity and ability their interest in certain phases of life or nature. Men of Mr. Barrington's individuality are not numerous. The delineation of architecture plays a small part in the exhibition, and then not of much importance. Here and there classic ruins are depicted with a very indifferent sense of the subtlety which may exist in architectural fragments which yet stand in Greece. And even in later types of building, the buildings of modern or comparatively modern times—in a line of street frontages, for instance, the artist would arrive at a better effect if he had a better understanding of the elemental principles which govern architectural design. There are two pictures at the present exhibition which are an exception to the painter's usual indifference in this respect. Mr. H. Fanks Waring, in his "St. George's, Hanover-square" and "St Martin's Church, Trafalgar-square," without subordinating pictorial effect to architectural design, contrives to do justice to both, which might serve as an example to many artists whom a mistaken teaching has led them to look for the picturesque—whether in architecture or nature—in a certain sort of adventitious quality.

At the Goupil Gallery there is an extremely interesting exhibition by a small group of painters happily brought together by Messrs. Marchant. The lower galleries are entirely devoted to the work of Mr. Wilfrid G. von Glehn, oil paintings and water-colours, possessing dash and vigour, in which the sunlight and shadows of Italian scenery are interpreted with skilful and bold handling. Mr. von Glehn's pictures indicate a vivid and instant realisation of the animation which exists in his subjects, and he is quite successful in communicating in paint his keen vision of things. In the upper galleries we find grouped together the work of Mr. Alexander Jamieson, Mr. Arthur Friedenson, Mr. Patrick W. Adam, and others. Mr. Jamieson stands the test of such grouping remarkably well. The wall devoted to his work indicates a broad and intelligent grasp of the essentials, whether in colour or design, which go to the composition of animated decorative effect. In Mr. Jamieson impression of things there is no lack of imaginative quality. The picture entitled "The Dark Fountain," with its dark pool relieved by the tints of a few floating autumnal leaves and its background of tall trees, is intimate with the colour spirit which haunts such places. In "Barges on the Seine" the large painting which occupies the centre of his group, the artist has surrendered himself entirely to boldness of effect, both in drawing and massing of colour. Mr. Adam's collection of pictures consists of interiors which touch the gamut, as it were, of modern and pleasant furnishing. But these quiet rooms, in which there is no violent play of shadow and sunlight so much affected by many modern painters when dealing with this type of subject—rooms in which the blinds are nearly always half drawn, provide Mr. Adam with colour themes of much variety and interest. Tenantless they may be (it is part of their charm); but not uninhabited; for is not the invisible presence of their inhabitants indicated by their arrangement, by their choice of texture of hangings and furniture, as well as by the smaller things which give—*je ne sais quoi* character to the surroundings of people who are able to express their character in the choice and arrangement, say, of their rugs and chairs, and tables! The small intermediate gallery is allocated to Miss Thea Proctor, a fluent disciple of the late Charles Conder. Miss Proctor has caught Conder's style, his fancy, his delicacy, his Watteau-like elegance. Apart from these designs for fans, Miss Proctor shows some excellently observed studies of coryphées behind the scenes or in practice, most admirably and vividly drawn. Mr. Gwelo Goodman and Mr. Douglas Wells also contribute interesting work.

ARCHITECTURE IN PAINTINGS.

AN ordinary general meeting of the Architectural Association was held on Monday at No. 18, Tufton-street, Westminster, S.W., Mr. Arthur Keen, President, in the chair.

The minutes of the last meeting having been read and confirmed, the following gentlemen were elected as members, *i.e.*, Messrs. J. Archibald, Finchley; S. B. K. Caulfield, Lincoln's Inn; and H. S. Davis, St. John's Wood, N.W.

The President announced, in reference to the nomination of officers for Session 1911-1912, the following additional nominations:—Messrs. G. E. Nield, A. G. R. Mackenzie, and A. G. Horsnell.

The following gentlemen were appointed scrutineers for the election:—Messrs. J. S. Cable, G. D. G. Hake, F. J. Matthews, H. A. Thomerson, A. L. Snow, and J. Archibald.

Mr. E. Gunn, Hon. Secretary, made the following announcements:—

The Camera, Sketch, and Debate Club exhibition of sketches and photographs, to be held at Tufton-street from April 4 to 11. The exhibition will be open from 10 a.m. to 6.30 p.m.

A combined meeting of the Camera, Sketch, and Debate Club with the Surveyors' Institution on April 27, at 7.30 p.m. Subject to be announced.

A visit to the Building Trades Exhibition at Olympia, by invitation of Mr. H. Greville Montgomery, on Saturday, April 22. Members to meet at Olympia at three o'clock. Tea will be provided.

The annual dinner, to be held on May 4 at the Trocadero Restaurant, Piccadilly.

The President then proposed a vote of thanks to the Royal Institute of British Architects for its grant of 100*l.* towards the educational work of the Architectural Association, remarking on the value of the grant to the Association. The motion having been agreed to,

The President proposed a vote of thanks to Sir Henry Tanner and H.M. Office of Works for the donation of a detailed drawing of Burges' Law Courts front. The drawing was made by Mr. Phené Spiers a good many years ago, at the time of the original Law Courts competition. The motion having been agreed to,

It was announced that the Herbert Batsford prize of five guineas, kindly given annually by Mr. Herbert Batsford for the best drawing published in the Sketch Book, has been awarded to Mr. J. M. Whitelaw for the past year.

Professor Selwyn Image then read the following paper, entitled "Architecture in Paintings":—

"Mr. President and Gentlemen,—Let me begin by thanking you heartily for the

"The Annunciation." By Carlo Crivelli.
(National Gallery, London.)

honour you have done me in asking me to come here this evening and read you a paper. I appreciate the honour very keenly. Yet in saying this, and, as it were, in the same breath, I feel that I must offer you an apology and throw myself to some extent on your indulgence.

When your invitation first came to me I felt in all honesty bound somewhat to excuse myself from accepting it, not because I did not wish to accept it, but on the plain, practical ground of not being sufficiently equipped, at least upon one side, for doing reasonable justice to your subject, "Architecture in Paintings." No doubt that subject may be dealt with from more points of view than one; for instance, from the architect's point of view, or from the painter's; or, again, from the point of view of theory, or of history, and so on.

But, at any rate, be the point of view what it may, it does seem as if anybody essaying the subject ought to have much more than a surface knowledge both of the art of architecture and of the art of painting. Now of the art of architecture my practical knowledge, as apart, let me say, from my appreciation, admiration, love of it, is, alas, far to seek! And so I remember I said quite frankly when your kind invitation came to me. But on receiving your rejoinder—not quite, indeed, in these words, yet virtually in them—that this did not matter—well, what was I to do? You had fairly taken the wind clean out of my sails. If with your eyes open you were going to be content with an architectural ignoramus, what was the poor architectural ignoramus to say but "All right!" And so here I am.

And still one word more of apology. I have a few lantern slides to show you this evening in illustration of my remarks. You have been most kind in providing me with these slides, and I have no doubt of their being as good as, in the circumstances, they can be. But what are the circumstances? I had to run about the other day up and down the town trying to procure a few photographs of pictures that would suit my purpose. It is always a hard matter to find at a pinch just what you want, and so in this case I found it. I wanted specially to find photographs of pictures the originals of which would be known, or readily knowable, by you in our national collection. But the task was not so easy as I had fondly imagined. I did procure, with some difficulty, what I wanted—more or less. But whether the photographs will make decent slides—ah, that remains to be seen! Having entrusted the matter to my friend Mr. Driver, they will make as decent slides as possible, I am sure; but I have not had the opportunity of testing them. May I hope that you will be somewhat lenient with me when I tell you that, apart from other work, I have recently had, or still have, upon my hands nineteen fresh, separate lectures and addresses, none of which, I assure you, are more congenial to me than this one to the Architectural Association, but most of which have been, or are, more exacting on my energies and my time.

And now to our subject, "Architecture in Paintings." I suppose one may say that the treatment of architecture by painters may be divided under at least seven heads—under at least seven, possibly under more, if one wishes to go minutely into the matter—but these seven may perhaps serve for our immediate purpose this evening. What are they?

First of all, there are those pictures in which architecture is dealt with purely or mainly for its own sake. I am not, of course, thinking of merely literal, topographical representations, which may be extremely valuable and interesting, and even charming, but hardly come under our notice at the moment. I am thinking of the work of considerable painters, as such, yet whose chief aim has been to show us faithfully how such-and-such buildings or groups of buildings at a given moment looked, and who were capable of doing this with a certain artistic effect, so to say, superimposed, the painting having a value as painting beyond its value as a literal transcript of fact. As types of such paintings we may take the works of the two Venetians, Canaletto, 1697-1768, and Francesco Guardi, 1712-1793. Of these two Guardi was the freer, or, I should rather say, the more flicky in his execution of the two—I should put him certainly well behind Canaletto. Or, again, we might take our own English Academician, David Roberts, 1796-1864.

Secondly, there are the paintings in which architecture is definitely imitated, so to say, as if part of the construction of the work, the artist is literally building, if one may be allowed the expression, not with marble or stone, but with his brush and his paint. The most famous type of all such work is, of course, Michelangelo's ceiling in the Sistine Chapel, 1475-1564. I have no very adequate illustration of this, but none is needed, it is so familiar to you all. In the hands of so immense and unrivalled a genius as Michelangelo, who was himself, remember, an architect as well as a sculptor and painter, the work is a consummate success. But in lesser hands, as we all know, the attempt after this kind of architectural painting may easily be disastrous enough. Certainly the many disasters it has given rise to make one feel how no man should attempt so Herculean a task who has not attained to our own Alfred Stevens's ideal of knowing only one art, the name of which is architecture, painting, sculpture, and all the accompanying crafts. Perhaps, in passing, you will let me note about the Sistine ceiling the splendour of its colour. When I saw it, now many years since—alas, there is little chance of my ever seeing it again!—the first thing about it that struck me was this splendour of its colour. I think it must strike everybody. And yet, you know, Michelangelo, with the strange modesty of great genius, at first held back from undertaking the commission on the ground that he was not a painter.

Thirdly, there are the pictures in which the architecture, though not, as in the Sistine ceiling, deceptively imitative of actual construction—of course, in a framed painting this could not be—is yet a fundamental part of the design treated with an independent dignity, as if there, so to say, for its own sake—just as in a jewel of the fine order it is the setting that counts, not merely the stone.

In the earlier and middle Italian work especially is this treatment common and amazingly impressive. Let me show you three examples of this treatment. The first, an Annunciation, by Carlo Crivelli, 1430-1493; the second, a Circumcision, by Marco Marziale, of about the same date, the exact years of his birth and death being apparently uncertain; the third, the famous Ansidei Madonna of Raphael, 1483-1520.

In this Crivelli, indeed, the architecture is almost the picture; if the picture were not so beautiful and so marvellously executed, considering what the subject of it is, one would be inclined to complain a little of the architecture as over-dominant. It is, however, at any rate, a miracle of drawing, of sumptuous decoration, and of colour. So elaborately finished is it up to the minutest detail that I always myself stand before it aghast that one man should ever have had patience and time to accomplish it, let alone all those other numerous works Crivelli executed with equal detail and precision. Still, it is a marvellous picture rather than a great one. You feel that the peacock and the carpet, the gherkin and the apple, have interested the artist as much as the Blessed Virgin and Gabriel; and though there is no lack of proportion in the design and its execution, there is certainly a lack of proportion in the motive or idea of the picture—it is little else, all said and done, than a bit of stupendous decoration.

My second slide shows you, I think, a nobler creation, Marco Marziale's presentment of the Circumcision. The architecture here,

as in the Crivelli, is of importance for its own sake, beautiful and highly decorated, too, but it is not the whole picture or anything like it; the incident and the figures are the thing, and the architecture sets them off duly, appropriately—it does not swamp them. You may return again and again to gloat over the decoration of these vaulted arches, with their sumptuous mosaics, and these curiously-embroidered vestments, or, say, over the dear little rough-haired dog in front; but it is the sweet, modest, figure of the mother, the reverent figures of her attendants, the bent figure of the old priest so carefully handling the child—it is these that permanently affect you.

We pass in my third slide on to a greater picture than either of these, the work of a far greater artist, the Madonna degli Ansidei of Raphael.

Again, here, the architecture is of the first importance, beautiful in its chaste dignity, but this time without any seductiveness of curious or rich ornament; now it is proportion and delicacy alone that make their appeal to us. Indeed, throughout the entire picture there is ornament little enough. But round the canopy of the throne and round its base runs the old Greek key pattern in gold—that amazing invention, which, in spite of its endless employment and endless vulgarisation, one never wearies of. Have you ever noticed how Raphael has drawn it in this picture? If not, notice it the next time you go to the National Gallery. He has drawn it quite "freehand," as the saying is. The gold lining is not the same thickness throughout, the repeat is far from mathematically exact, the pattern only just manages to get itself into the space. And yet how much of the charm of this ornamentation here does really depend on this free treatment! Look at it, and think how much would be lost if all were mechanically, rigidly perfect! Do not misunderstand me. I am not counselling students to draw carelessly and flourish about. But when a really great draughtsman sets compasses and ruler aside and trusts to the sensitiveness of his hand, how incomparably enchanting is the result!

And allow me yet one more word over this picture before the slide passes—a word about its colour. The design, of course, is not that of Raphael at his height; it is a design of the young Raphael, still obviously under the influence of Timoteo and Perugino. There hangs not far off from it in the Gallery Perugino's famous Madonna, with St. Michael and St. Raphael leading Tobias—a picture whose colour can only, in all sobriety, be called glorious. And yet turn from it to the Ansidei. Not less rich, not less brilliant, not less potent, but with a certain subtlety of gradation and tone, a miraculous, delicate, vibrating light through and over it all that makes Perugino's painting—at least to my eyes—mechanical and—dare I venture to say it?—almost dull; no, dull, that is too bad a word—let us say hard or heavy. And some tell us that Raphael could be no colourist.

Fourthly, there are the pictures in which architecture is assuredly very important in the scheme of the design, and yet only important as its main accessory, as adding, that is, a certain effect of sumptuousness in the background of the main composition.

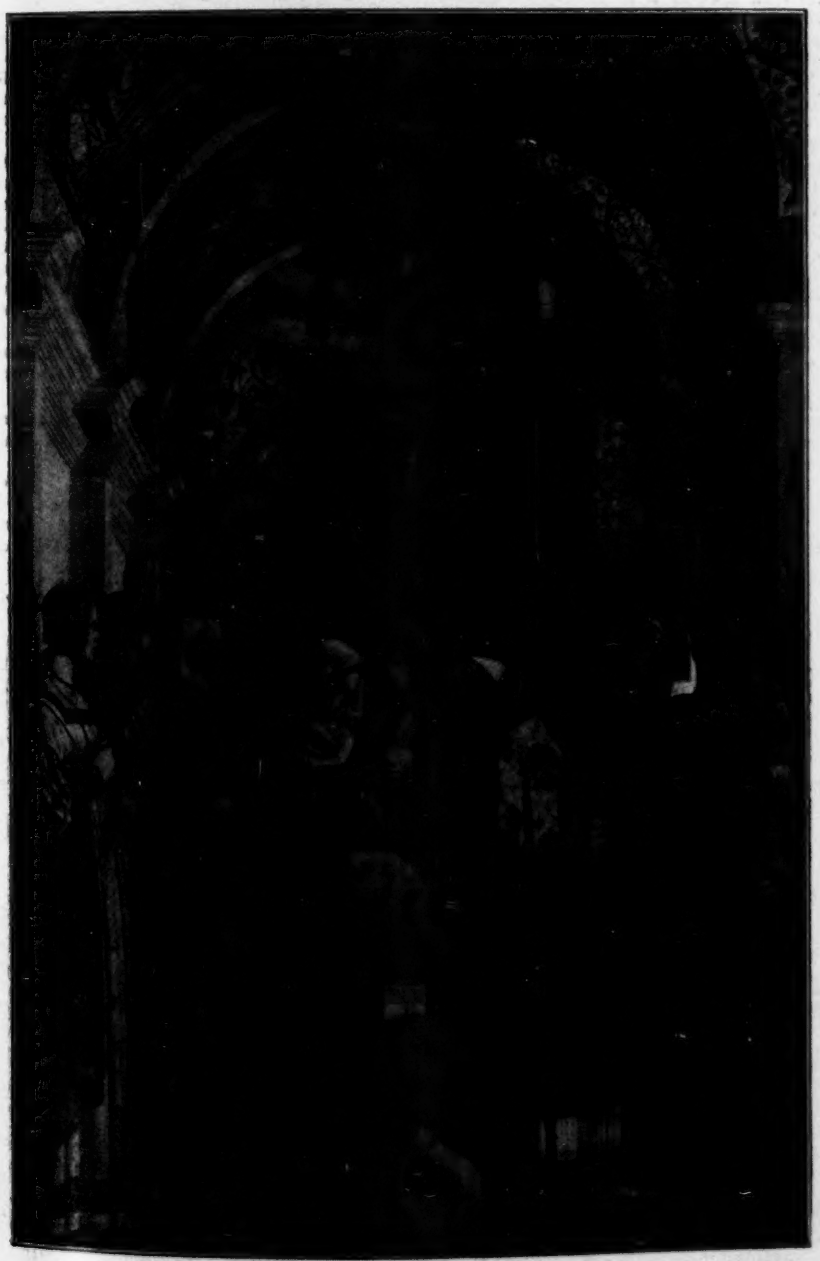
I am giving you as examples of this treatment two pictures by Paul Veronese, 1528-1588. The first is the famous and magnificent "Family of Darius at the Feet of Alexander," after the Battle of Issus in 333 B.C. There needs, I think, no insistence upon the motive of the treatment of the architecture here; it is obvious, and it is like that in so many of Veronese's pageantry designs—the superb "Marriage at Cana of Galilee," for instance, in the Louvre. As to the subject, the story runs, if I remember rightly, that on this momentous occasion the unfortunate family of Darius—Darius himself having escaped—on their introduction into the august presence of their conqueror fell upon their knees, not before Alexander, but before his bosom friend—was it Clitus? I forget—who was the handsomer and more imposing personage. Perhaps, from the action of the main figure, that is what Veronese depicts. I do not know. Anyhow, it is pleasant to hear that Alexander, like a real gentleman, showed no resentment at the mistake, but treated his captives, so they tell us, with the "utmost delicacy and respect."

In my next slide, "The Adoration of the Magi," the architecture is even more prominent or obtrusive than in the Darius picture, but it is still of the nature of an accessory. Up in the left-hand corner of the design you notice a portion of the building is ruinous and overgrown with weeds; so that perhaps here we are verging upon a merely picturesque accessory. I shall have a word to say on that quality of picturesqueness a little later on, so intimately associated with the representation of broken forms—the broken forms especially of buildings. But the love of picturesqueness, in this sense, is, I fancy, comparatively a modern sentiment, and in this Veronese design the ruinous condition of part of the architecture may be not so much picturesque as symbolical—the pride of this world shattered and brought low before the divine child sheltered even here, you see, amid these stately columns, under a hastily-erected shed. In a much earlier Florentine picture familiar to you all, "The Martyrdom of St. Sebastian," by Antonio Pollaiuolo, a similar question suggests itself. Here a magnificent triumphal arch in the background is shown all broken away at its top, as if to hint, so to say, by a touch aside, that the persecution of the Church assured its triumph and sealed the doom of the pagan authorities so cruelly, yet in vain, raging against it. In any case, of course, not too much is to be made of this symbolism, even supposing that symbolism it is. Yet both Pollaiuolo and Veronese may well have thrown it in, a detail, by the way, in their designs, giving to them some slight additional significance for those who were curious to examine their paintings more than cursorily.

We pass on, fifthly, to those pictures in which, though the architecture is perfect and stately, it is in scale small and unobtrusive, quite carefully and even elaborately presented, yet in the distance as an incident in the further background. Here are two slides of contemporary works illustrating this treatment by the two famous brothers-in-law, Giovanni Bellini and Andrea Mantegna—Bellini, 1428-1516; Mantegna, 1431-1506.

The breadth, softness, and serenity of this "Infant Christ Asleep on the Lap of the Virgin" are wholly characteristic of Bellini; and these qualities are notable, not only in the treatment of the main figures, but in the placid movement of those little figures, too, and of the cattle in the background; and also, surely, in the disposition and lighting of the towers and castellated walls lying so peacefully up the hillside there beyond them.

You may suppose that all this peacefulness and serenity are here only to be in harmony with and to emphasise the motive of this particular picture—the Infant Jesus asleep on His Mother's lap. One knows, however, that these qualities characterise Bellini's work in general, so that he loses them not even when his subject neither demands their presence, nor is even quite consonant with it. Thus, for instance, in the more famous picture in the National Gallery of "The Murder of St. Peter Martyr" there is scarcely less serenity, you may remember, than in this picture—so that one often hears passers-by commenting on this serenity of landscape and accessories as at something incongruous—it is a stumbling-block in their way. Assuredly how vastly different from that other St. Peter Martyr, Titian's masterpiece, once over



"The Circumcision of the Lord," By Marco Marziale.
(National Gallery, London.)

"The Calumny of Apelles." By Sandro Botticelli.
(Uffizi Gallery, Florence.)

the altar in the Church of SS. Giovanni e Paolo at Venice, but these many years since destroyed by fire, yet, fortunately, the design preserved for us in engravings. Here all is movement, violent movement—the tall trees swaying under the fury of a hurricane, Nature herself for the moment boisterous in horror at the foul deed being done there at their foot.

Although contemporaries, and so closely connected, from Bellini to Mantegna is a far cry. Here in our next slide is the latter's representation of "The Agony in the Garden. In the middle distance stretches a fair and stately group of buildings, the Holy City of Jerusalem accurately and minutely delineated in her strength and pride. Although to serve but as a distant detail, Mantegna, whose love of architecture and sculpture was predominant, and in everything that he painted his passion for precision amazing, designs and draws for us each building here with elaborate care; nothing is slurred over or merely suggested; bit by bit the whole range of the buildings is deliberately in detail made out for us. Yet it is part of the miracle of Mantegna's work that with all his passion, as I have ventured to call it, for precision, and his love of detail from one corner to the other of his pictures, we are not distracted, as in Crivelli, by a multiplicity of adornments; but everything holds its place in justly calculated relation of subordination or precedence, the central motive of the design remaining paramount in its human interest, and in its dignity and largeness of effect.

This is so; and, indeed, without this largeness of style and passionate curiosity in humanity—look for an illustration of this latter at the figures of the three slumbering Apostles in this picture—Mantegna's exalted position in art would not be what it is; no, not for all his learning, and, in some sense, his unrivalled draughtsmanship. Yet I cannot find it in me to let this mention of him pass without a word commending to you the study of his detail—the detail especially of his foliage and flowers. Even in this awful and harrowing subject of Christ's Agony he cannot resist, you see, setting in the foreground these little nameless weeds. And how exquisitely designed they are! How always exquisitely designed, his hand never failing! I sometimes think nobody has ever drawn plants and flowers and fruits quite with Mantegna's union of grace and strength. Botticelli has the grace, but not the strength; Leonardo has the strength, but yet even he hardly the grace. But I refrain, for this, you will be telling me, has nothing to do with architecture.

We have so far, in the pictures I have shown you, seen architecture treated by the painters as a thing so dignified and important that even when it enters into the design only as an accessory and on a small scale in the background, no looseness or liberties are to be allowed in the delineation of it. Perhaps it was not until a later age, when, for reasons which we cannot here stay to inquire into, the enjoyment of landscape, and the representation of it for its own sake, began to prevail, that any other pictorial treatment of the mother of the arts was possible or even thought of.

That Titian, 1477-1576, was one of the first, or the first, of the great masters who thus dealt with landscape in a serious manner for its own sake is a commonplace familiar to every student; and there are many splendid landscape designs and studies of his extant to bear out the statement. I am not showing you any one of these on the screen, because, of course, landscape is not our subject this evening; but here is a famous picture-piece of his, the "Noli me tangere," in the National Gallery, and I think you will feel that it is not mere fancifulness to recognise in the treatment of the buildings in the right-hand upper corner of the background here, at any rate, the stirring of a different feeling towards the pictorial treatment of architecture from anything we have seen in the preceding slides—even when the buildings have been background-accessories on a small scale, as in the Bellini and the Mantegna.

Now what is the change that has come or is coming about? At its beginning, and here we are at its beginning, it is naturally something easier to feel than to analyse and put formally into words. But may we not say that evidently Titian's concern with the group of buildings in this picture is simply as to their providing him with a dark mass of something in the distance against the sky to serve as a useful mass in the balance of his design? That it is a mass, not of rocks or trees, but of human habitations is natural, because, as a rule, even a pure landscapist likes to get into his scene some hint of humanity—if I may so say, it vitalises and warms up the scene. But, apart from this, the mass is thought of simply as a mass, the interest in the buildings as buildings is negligible. That is not so, as we have seen, with Bellini or Mantegna; but, I venture to say, in this Titian it is. To put my point into general words, we are coming now to a period, to a phase of thought and feeling, in which the painter will use architecture purely for pictorial effect, as a mere item in his design providing some required mass, or space, of light or dark; the actual forms and details of the architecture will, in consequence, comparatively matter little to him, and their delineation as such will be often vague, or even, in a certain sense, careless. The point, of course, requires more studied and accurate working out and formularising than at the moment I can stay to give it. Still, I think a real point it is, and I hope I may have made it serviceably plain to you for at least our immediate purpose.

Fifty or sixty years after Titian's death, and this—shall we call it for distinction purely pictorial attitude towards and employment of architecture?—has become common enough. You will see it clearly emphasised in this grand landscape by Gaspar Poussin, 1613-1675. It is obvious that here the interest is not in any sense in the buildings of the distant town as buildings, but only as they afford an elongated stretch of light balancing the carefully-designed lines and masses of the landscape, charmingly illuminating and vivifying it. The more pure landscape appeals to painters, and the emotions it is capable of arousing are insisted on as the subject of their pictures, the more will this treatment of architecture in their compositions assert itself. Indeed, it is imperative; for obviously it would militate against the effect and impression they are seeking after were they to introduce their architecture more elaborately delineated; it would destroy breadth by focusing the attention on details of construction in a single part of their design, just as in another way it would be impossible in such a landscape as this of Poussin's to treat the foliage leaf by leaf, as in Bellini's Peter Martyr, or the foreground with Mantegna's weeds, without disaster to its entire scheme and purpose.

You will not, of course, understand me as saying that this generalised and summary method of treating landscape is the only proper and fine method. It may easily degenerate, and, as a matter of fact, degenerate it did, into academic formalism, an almost mechanical application of certain

"The Agony in the Garden." By Andrea Mantegna.
(National Gallery, London.)

empty conventions of composition. Yet its principles, intelligently apprehended, and applied not mechanically, are capable of what impressive and dignified results! This magnificent Poussin I commend to you as an illustration of it. I spent a long while on Saturday last trying to find the picture in the National Gallery, that I might refresh my memory with a sight of the actual thing before speaking about it to you here this evening; but I searched in vain. To my thinking it is one of the great landscapes in our possession—by far the greatest of all the Poussins, and there are several—but at the moment, apparently, it is not rehung on the walls. But when it is, go and look at it; it is worth a world of study, and, amongst other excellent qualities, for bringing home to us the meaning of scholarly and superb design.

And now we have come to the seventh, and last, heading of our subject, as I have mapped it out for the purpose of this evening's paper. Under it I am showing you, first, a picture by Albert Cuyp, 1620-1691—"A Ruined Castle in a Lake."

Here, certainly, there is architecture prominent enough; no mere accessory of the general design for the sake of symbolism or play of massed light and dark—the building is itself the thing. Yes, but what is the artist's interest in it? The answer springs to our lips at once—he is interested in the building just for its picturesqueness. He would not have felt the same interest in it supposing the castle were standing in its first pride of completeness and unshattered strength, alert with busy life within and around; but to-day it is deserted, its walls broken and crumbling; over them weeds may now clamber unmolested, and hooting owls circle by night. And the charm of all this ruggedness and decay it is that arrests him hauntingly.

Or look again at another picture, this time by Ruisdael, 1628-1682, of a motive very similar—the castle here yet more utterly a wreck, just one tottering, crumbling tower and wall of it left, all overgrown at their base with tangled bushes, its design and plan clean perished out of sight.

Or, again, one last slide more to finish with—a landscape of Hobbema's, 1638-1709, a design of trees with cottages nestled among them, such as he loved to paint. It is true the cottages are not in ruins, busy country-folk inhabit them; but they are old and weather-beaten, their timbers are warped, and the lines of their roofs and walls have sunk into quaint irregularities. Smarten them up, make their crooked places straight, and their rough places plain—and then? And then Hobbema will say to you, "My friend, you've left me nothing worth painting!"

Well, I do not think I am putting the matter unfairly, over-colouring it for effect; and assuredly it brings home to us how long a way we have travelled in these minutes I have been speaking to you from those elder Italians, with their love of order, stateliness, clarity, precision; and have passed not merely through many years, but are come out, as it were, at last into a new and vastly different world of artistic conception and enjoyment.

Now all this rugged brokenness, this indecision and irregularity of mass and form, we have learned to speak of as picturesqueness, and to be strangely attracted to and impressed by it. The love of it, as I have already said, is comparatively a modern sentiment; and perhaps it could only have arisen in times when men were settling down into a sense of some assured security and physical comfort, and were growing to look upon Nature, not as a world of lurking danger, but rather of friendliness and charm. And as this feeling grew there would grow with it the desire to depict natural scenes, and the sense that, whenever into such scenes were introduced human habitations and signs of human toil, these must in their forms be congruous with the lines and masses and colours of surrounding nature—these, which are never rigid, hard, monotonous, but endlessly and inextricably diversified. And since, as in the elder days, when man and man's work were the main motives of art, the presentment of nature was conformed to their orderliness and precision; so, as Nature began to assert herself as for her own sake a motive of his art, the presentment of man and his work, this in its turn was now accommodated to Nature, to her infinite variety of form, and her shifting play of colour and of light. And so, I think, you will see that our modern love of what we call picturesqueness in the treatment of architecture has a reason and justification in the order of things, and, though with most of us nowadays purely instinctive, it is yet easily capable of analysis, supposing we are in the mood for analysing. It may often lead us, of course, into a degenerate production of merely trivial prettiness, and equally, of course, there would go to its complete analysis several other elements beyond that which I have insisted on. But I have said enough for the moment perhaps, considering the immediate subject before us this evening—enough, that is, to assure you in behalf of us painters that we are not merely impudent triflers with the supreme art of architecture when sometimes we do seem to approach it a little jauntily at our ease, with neither sufficient knowledge of its principles, nor quite a becoming reverence for its dignity.

I have endeavoured, gentlemen, in a quite cursory and very imperfect manner, to show you a number of ways in which architecture has been dealt with by various great painters of various times and schools, and this, at least, you will hardly deny that the ways are are very diverse. Here, then, as in almost everything else, there is no one law or method to be laid down and universally applied with rigour, but according to the circumstances of the case will be the treatment adopted; and every reasonable treatment will have its appropriateness, and so its justification and intimate charm. But let us remember we all of us have our limitations—limitations imposed upon us not only by our natural instincts or tastes, but by our education, and by the character of our work in the world; and in judging of other departments of work than our own, though to judge rightly demands that in some measure from the restraint of our limitations we should free ourselves, to do so is often difficult and distasteful. "The first duty of a critic," it has been said, "is to get himself out of the way"; and though that is not the final counsel as regards criticism, the first it assuredly is. And so, when any work of art is submitted to us, and it is at first sight strange and unacceptable, and runs counter to our innate prejudices, or prejudices induced by our professional training, we do foolishly if we dismiss it in petulance with an "It's all wrong, and I can't stand it!" or a "Yes, but that's not my style, and I see nothing in it!" But in quite a different temper we have, if we want to stand on the side of the angels, to put three questions to ourselves, and try to answer them quietly. Firstly, What has the artist aimed at? Secondly, Has he attained his aim? Thirdly, Was it an aim worth attaining? And, though our first offhand judgment, prompted by sheer instinct, may prove also our considered judgment, and we may have, after all, to denounce the work right out, it is only because our criticism has passed through this disciplinary process before it utters itself that it is worth listening to, or finally will count."

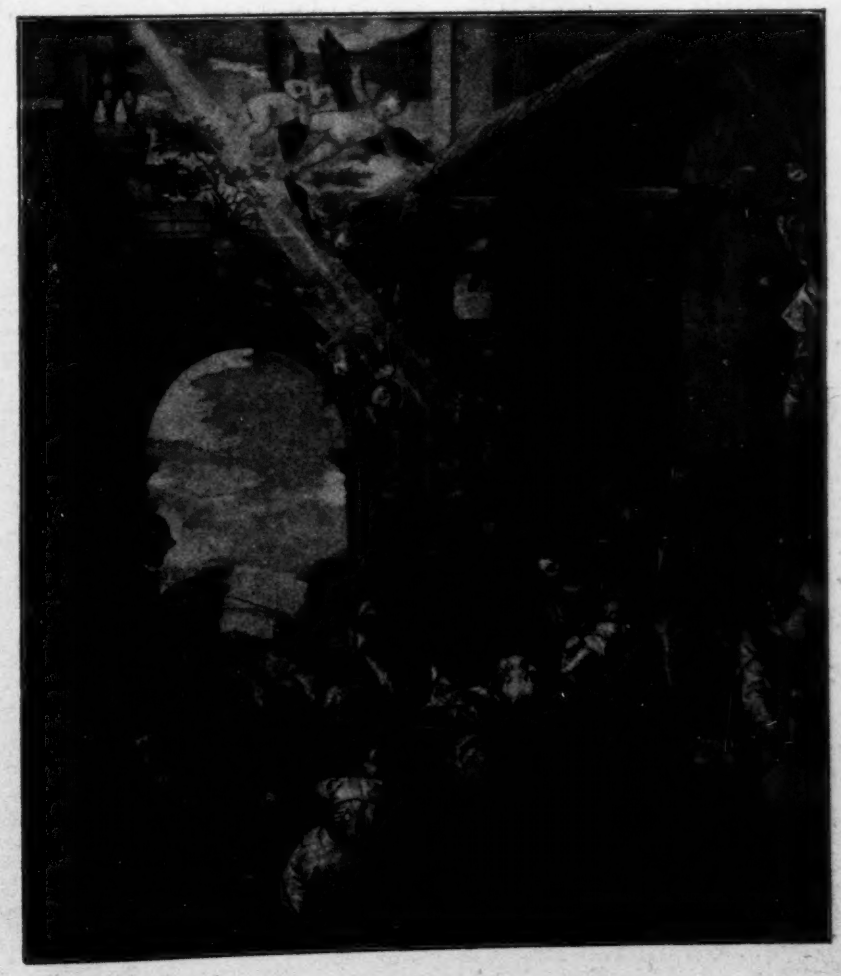
Mr. Christopher Whall having proposed a hearty vote of thanks to the lecturer,

Mr. Gerald Horsley,

who seconded, said it would be interesting to follow the lecturer into the many sides in which he had dealt with the subject, but there was one side which was particularly interesting to architects, and that was in reference to the early period, of which several examples had been shown—of the early and middle Italian period. They had seen the influence of Bramante in the picture by Raphael of the Madonna from the National Gallery, and that spoke eloquently of the sympathy between the painter and the architect of the time. Botticelli's pictures, too, were often full of architectural treatment, as could be seen in one or two at Florence; and that brought to mind the work of Brunelleschi. In the same way there were the Titians and Veronese pictures, which recalled the sympathy between the Venetian painters and architects. That side of the paper suggested the advisability of cultivating as far as possible the society of one's fellow-craftsmen—in this case the painters. If architects could meet them more often than they did their work would gain in interest and vitality, just as the pictures of painters would reflect the artistic sympathy which must arise when the two crafts met together.

Mr. A. T. Bolton

said he was glad Professor Selwyn Image had selected the National Gallery as the field of illustration, because we had in the Gallery



"The Adoration of the Magi." By Paul Veronese.
(National Gallery, London.)

an extraordinarily interesting collection, and it was very advisable for them to spend any spare time they had there. They could get a very good idea of the lecture if, supposing they went into the Gallery by the central entrance, they walked through the Italian rooms, Early and Late, and on to the Dutch and Netherland rooms, afterwards visiting the French and British galleries, now re-arranged. If they did that he thought they would feel they were passing through the development sketched by the Professor that night. The historical and national method adopted in the arrangement of the National Gallery was distinctly valuable, for, first of all, there was the contrast of the earlier and the later development of each school, and then that of the different nationalities occupying different parts of the world, with varying climates and atmospheres represented, all of which could be seen in the course of a stroll round the galleries. No one who went round in that way could fail to be struck by the enormous development which had taken place in painting since the time of Giotto to the present day. He should like to take the commencement of landscape a little further back than the lecturer had placed it. To his mind, the two first landscapes were to be found in two of Raphael's cartoons, i.e., "Christ Charging Peter with the Custody of the Sheep," and the wonderful river scene with the Apostles fishing in the boats. One saw in those works the influence which Urbino and the beautiful hilly country of Italy had on Raphael. Doubtless many a time while in Rome his thoughts wandered back to his native country, and might they not trace in those two cartoons the real origin of landscape painting? Turning to Crivelli's Annunciation, the real point was that in those days the painters were still interested in design as we understood it—design of architectural details, façades, houses, and their interiors, and Crivelli did not represent any actual building, although the detail of it was similar to the early work of Bramante in Milan and elsewhere. Architects to-day rather felt that painters had lost touch with them because they no longer cared about design in this sense. Pictures were painted with the most horrible architectural detail in them; it seemed to be regarded as a matter of small moment, and that showed the breach that had come about between architects and painters. He used to belong to a society in which water-colourists often met, and he sent in a measured architectural drawing in colour. A very good water-colourist said, "That's all right, but there's no atmosphere." Of course, there should not be; but that was the frame of mind they had to understand. A most delightful painter of the present day painted a picture in which architecture came in, and, although the detail was prepared for him by an interested architect, he had made quite a mess of it in the actual painting Unfortunately many painters could not be got to see why the most preposterous caps and entablatures should not be put on their columns, and the very A B C of the question was not understood. It was all a matter of colour, shadow, or atmosphere with the painter, and some little study of the subject from their standpoint was necessary to enable the architect to realise their point of view. As architects they studied decoration, and if painting had a decorative side, then obviously the opinion of an architect was of value, decoration being within the province of the architect. Take the glorious Veronese they had seen that night. Veronese was a friend of Palladio, and the friendship in that case was as valuable as the association of Raphael and Bramante. As to Michelangelo's magnificent ceiling in the Sistine chapel, the great charm of that seemed to be the large element of white, which was really due to the architectural detail so painted. There was a great deal of white in the ceiling, and Reynolds commented on the value of white so employed, illustrating it by his experience with white paper while making notes on pictures. The next best-known fresco ceiling in Rome was the celebrated Aurora—remarkable both in pictorial design and colour. There was no architecture in it; it was a scheme of colour, developed from golden dawn on the one side to purple night on the other. During the relatively short time from Michelangelo to Guido Reni such a revolution had taken place in painting. As Sir Frederick Leighton pointed out, painters were now working in "that realm where Rembrant is king." He did not know whether the clock would ever be put back; possibly it could not be. As to the interesting position which Professor Selwyn Image held at Oxford, it must be a delightful task to come in contact with the future governing classes of the country, and to try and get them to realise that there was such a thing as art and a living architecture. It was a difficult task, but possibly fascinating in its difficulty. They might be allowed perhaps to speculate what the lecturer was going to do at Oxford to impart an interest in architecture. Oxford seemed to be a school of architecture in itself, and architecture could be taught in the streets, for there could be seen the work of all epochs. It was a glorious city, and the only place at all like it was Salamanca, in Spain, also a University city. Could something on a miniature scale be done at Oxford like the valuable index of drawings at South Kensington? It could almost be confined to Oxford buildings, and young fellows, who might not otherwise be interested, might be got to take an interest in what was around them if it were brought to their notice.

Mr. A. B. K. Cook

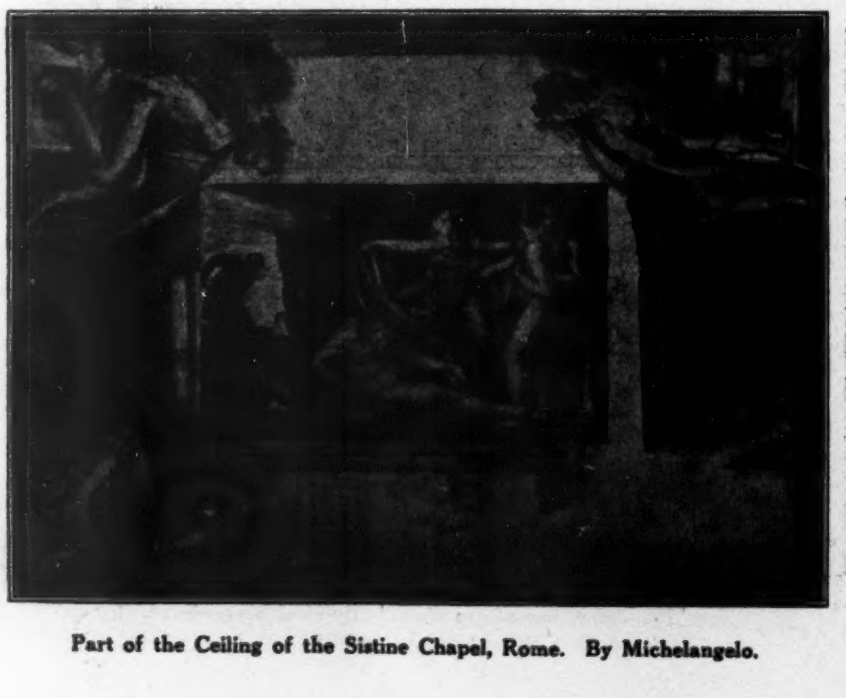
drew attention to the value of an architectural framework to certain pictures, especially those of a primitive and mainly decorative character. In this connexion he alluded to the importance of the canopy work in the stained glass of the XIVth and XVth centuries, and to the architectural frames in which the altar pieces of many early Italian painters, notably Crivelli, were set. He suggested that the frequent occurrence of ruined architecture in pictures of the Renaissance was due not so much to an early manifestation of the modern love of the picturesque, as to the awakened interest in antiquity and the consequent representation of antique architecture in the form in which the artists actually saw it. He further complained that the quest of the picturesque had had somewhat baleful results, both on painting and architecture, but pointed out that that was now being succeeded by a "direct" school more on the lines of Canaletto and Guardi. He concluded by suggesting that an eighth class should be added to Professor Image's classification—that of the ideal portrayal of architecture, instancing Turner's "Agrippina Landing at Rome," and Piranesi's drawings. Such works could hardly fail to be full of inspiration to architects.

The Chairman,

in putting the vote of thanks to the meeting, said that the chief point of interest to them was the many-sided genius of the men of the Renaissance who turned their attention indifferently to architecture, sculpture, painting, goldsmith's work, and so on. The early pictures shown upon the screen were clearly designs by the painters, but the later ones by Giovanni Bellini and Mantegna seemed to be more or less transcripts of existing towns which came in conveniently for the painter. The earlier ones by Crivelli were evidently the painter's idea of architecture. He had been interested in reading Benvenuto Cellini's autobiography, where he spoke of the work he did at Fontainebleau—how he took in hand a doorway and made it fit to receive his work, and how he dealt with the architectural features. It was part of the education of the artists of those times that they should know such points as a matter of definite knowledge, and not of opinion. An Association of artists would be a very fine thing if it could be brought about, and he wished it could be done by the Association in that building. He often wished that the Royal Academy would do more in that direction, for it would have a useful effect on all the arts.

The vote of thanks was heartily agreed to.

Professor Selwyn Image briefly replied.



Part of the Ceiling of the Sistine Chapel, Rome. By Michelangelo.

FIFTH SPRING VISIT.

Two buildings formed the programme of the visit on April 1. Meeting at the Royal Academy of Music, in Marylebone-road, by kind permission of the architects, Messrs. Ernest George & Yeates, members first inspected the drawings, and subsequently the building—now in course of construction—under the guidance of Mr. Norris, the Clerk of Works. The accommodation comprises staff and waiting-rooms, classrooms, with their attendant cloak-room and other facilities, and a large concert-hall available either in connexion with the Academy or independently. A simple plan has been devised, producing a good architectural mass in development. The front to Marylebone-road is E-shaped, the projecting arms forming lower wing-buildings supporting a main central block six stories high. On the main axis are the projecting central entrance and the principal staircase; this axis is intersected by a longitudinal corridor running through the west wing to a supplementary exit at that end, and communicating at the east end with the large hall which occupies the whole of the east wing. These two wings balance in general mass, but are varied in detail—a happy treatment in the circumstances. The ground floor is occupied mainly by staff and waiting-rooms. In the basement are luncheon-rooms for students and professors, with kitchens, heating, and power chambers, and very extensive cloakrooms for male and female students. The greater part of the upper floors is occupied by classrooms, of which there are forty, with, in addition, two organ-rooms. The elevations are treated in red-sand-faced bricks with Portland stone-dressings on a Portland-stone base, a central projection topped by a segmental pediment above the attic story being throughout of Portland stone. Opinions may differ as to the design of this central projection, in which two Ionic pilasters are, as it seems, rather unnecessarily introduced, with two bays of fenestration between them, giving a central pier above the entrance whereby the purist is shocked. The steep roofs are covered with Delabole grey-green slating, and with their fine upstanding chimney-stacks confer character upon the building.

The whole of the floor and roof construction is fire-resisting, on the Frazzi system, and was in an interesting condition on the date of the

visit. A problem throughout has been the insulation of the various class and practice rooms against both escape and penetration of sound, rendered more difficult by the fire-resisting construction, which is apt to be extremely transmissive. The brickwork is of stocks in lime mortar, and walls less than 14 in. thick are stoothed with creosoted battens before plastering. Partitions are double Frazzi slabs with a 6 in. cavity, and double 2 in. teak doors are provided throughout. In the floor construction each steel joist bears upon a ½-in. felt seating, and its ends are not pinned in, but rest in pockets in the wall, the superincumbent brickwork being carried over by York templates. The filling-in is ingenious, and deserves to prove successful. Above the Frazzi slabs borne by the bottom flanges of the joists is fine ballast concrete; upon this is a layer of sand 2 in. thick upon which is laid a covering of breeze concrete to receive the floating for wood-blocks. The upper flanges of the joists are kept free, bridged by a special tile slab which does not make contact. Over all goes the floating for the maple block flooring. The concert-hall will have a ferro-concrete vaulted ceiling (not yet commenced) covered by a wooden roof. Messrs. Wallis & Sons, of Maidstone, are the general contractors.

The second building visited was the Swedish Church, Harcourt-street, Marylebone, where members were received by Mr. Wigglesworth, of the firm of Niven & Wigglesworth, the architects. A fine simplicity about the exterior proved the index to some most interesting and thoughtful work within. The building occupies the site of an old brewery, and supplants the interesting little Georgian church in Princes-square, St. Georges-in-the-East, as the centre of the Swedish community in London. It is divided into three sections: the church, with gymnasium-hall below, placed centrally; with the pastor's house on the north, and the school-building and committee-rooms on the south. Ingenious planning of entrances has successfully surmounted a rather difficult problem in utilising the site to the fullest extent while preserving good lighting and independence for the three sections, with an architectural approach to the church. The latter in particular is very well managed. The entrance is through a central projecting porch, by stairs rising on either side, and reuniting on a common central landing with a level parapet overlooking the lower level. A central recess and niche facing the entrance, with some charmingly decorative lettering was (it was explained by the architect) a happy after-thought suggested by the construction. This vestibule is covered by a modelled plaster ceiling below the western gallery in the church, and its lighting by a row of low windows just beneath gives external expression to the arrangement. The body of the church is a simple rectangle with a short projecting chancel. The walls for a height of 10 ft. are of Bath stone, above which is stippled plaster. Four very tall narrow traceried windows in the side walls, and a group of three in the west gable light it very effectively, and the large expanse of plain wall surface gives a singularly dignified effect for so small a church. A fine pulpit and sounding-board, a pedimented reredos, and some other Georgian fittings have been removed from the old church, and their presence in an interior of earlier character proves quite successful—as it always does. The oak western screen made by Messrs. Ogilvy, of Aberdeen, is fumed dark to tone with the old work. A pavement of black marble and cream Hopton Wood squares (smoothed rather than polished) is very good. The great feature of the interior, however, is the finely-modelled and coloured plaster barrel vault by Mr. Laurence Turner, which has a beautifully soft and harmonious effect as decoration. It is treated in quiet greens, greys, and reds with some gilding, on a scumbled white ground in the panels. All the ironwork has been excellently made in the church from the architect's designs by a local blacksmith, Mr. C. Mylam, of Carlton Vale. After walking over the school block a descent was made to the hall, a fine, well-lighted room, which expands to double the area of the church above it, by aisles and transepts external to the main walls, the latter available also as separate small halls. Its separate entrance, with cloak-rooms, etc., constitutes it an independent unit, if desired. Messrs. Holland, Hannen, & Cubitts, Ltd., were the general contractors.

Members were much indebted to Pastor Linskog for kindly permitting this interesting visit.

ARCHITECTURAL SOCIETIES.

The Liverpool Architectural Society.

The sixty-third annual general meeting of the Liverpool Architectural Society, Incorporated, was held on Monday, the 3rd inst. Mr. Arnold Thornely, F.R.I.B.A., was in the chair, and gave a short address on general matters affecting the Society.

Among other matters dealt with, the report states:—

"The present membership of the Society consists of fifty-three Fellows and seventy-three Associates, a total of 126.

The Royal Institute of British Architects having sought the assistance of the Society in drawing the attention of the local profession to the new scheme for the admission of architects as Licentiates of the Institute, a meeting was held on December 12 last at the Society's Rooms, Harrington-street, to which all known architects in the district were invited. Mr. George Hubbard, F.R.I.B.A., and Mr. A. W. S. Cross, F.R.I.B.A., attended on behalf of the Institute, and explained the objects which the Institute had in view. A similar meeting, held at Rhyl, on December 13, was attended by our President and Hon. Secretary.

The proposal to cut away the wall at the south end of St. George's Hall in order to prepare a site for the erection of a memorial of the late King Edward has met with the opposition of the Council, who have petitioned the Memorial Committee and also the Finance Committee of the City Council with respect thereto, pointing out that in their opinion no statue can be erected in that position without injury to the composition of the Hall and danger to the beauty and dignity of the memorial, and suggesting that a less dangerous and more suitable site be found elsewhere.

A National Conference on "Details of Practical Town Planning Administration," under the auspices of the National Advisory Town Planning Committee, was held in Liverpool on February 23 and 24 last. The Council appointed Mr. Arnold Thornely and Mr. E. Percy Hinde to attend the Conference as representatives of the Society. There are indications that in the near future the application of the Town Planning Act is likely to have far-reaching effects in regard to the laying out of land for building purposes.

The Royal Institute of British Architects has approved and published a new form of "Regulations of Architectural Competitions." The new regulations embody several of the suggestions put forward by this and the Manchester Society, but the Council thought it right to protest against the members of the allied Societies being regarded as bound by the stringent terms of the regulations unless and until the regulations had been submitted to and approved by them. The Institute, in reply, regretted the misunderstanding, but submitted that, as the wording of the regulations was considered sufficiently elastic to meet reasonable modification, it was hoped the Society would support the regulations as published. The Council decided not to press their objections further."

The following are the officers for the sixty-fourth session, 1911-1912:—President, Arnold Thornely, F.R.I.B.A.; Vice-Presidents: E. P. Hinde, A.R.I.B.A., C. H. Reilly, M.A., A.R.I.B.A.; Hon. Secretaries: Gilbert Fraser, A.R.I.B.A., Ernest C. Aldridge; Unofficial Members of Council: W. Glen Dobie, A.R.I.B.A., J. Dod, T. E. Eccles, F.R.I.B.A., G. H. Grayson, M.A., A.R.I.B.A., L. Hobson, A.R.I.B.A., P. C. Thicknesse, F.R.I.B.A., W. E. Willink, M.A., F.R.I.B.A., L. P. Abercrombie, F. E. G. Badger; Hon. Audtors: John Woolfall, F.R.I.B.A., M. Honan, A.R.I.B.A.

Nottingham Architectural Society:

VISIT TO TERRITORIAL HEADQUARTERS.

The first visit of the session took place on Monday, March 27, to the new Territorial Headquarters, on Derby-road, Nottingham, now being erected from designs by Messrs. Brewill & Baily, the architects.

Major Brewill, F.R.I.B.A., who had invited the Society, met the party and explained the plans and general arrangements, and then conducted the visitors over the portion now constructed, pointing out the special features and methods of construction. The building is to be the headquarters of the local branches of the Territorials. It comprises separate suites of offices for the different sections of the service, large military stores, a large hall to house the gun-carriages, etc., a large drill hall above this latter, extensive stabling and carriage-houses, and the rooms necessary for full equipment. The ground floor, which forms the store-room for the gun-carriages, is about 100 ft. long by 80 ft. wide, and it was essential that as few columns as possible obstruct the floor space. The architects have therefore adopted the Hennebique system of reinforced concrete columns and beams to carry the floor of the drill hall above, which is also constructed on the same system of reinforced concrete. Major Brewill explained the method of arranging the steel bars and the centering, and at the termination of the visit Mr. Harry Gill thanked him on behalf of those present for his kindness in arranging such an interesting visit. Among those present were Messrs. W. R. Gleave, S. Walker, F. W. Gregory, W. Hickson, and the Hon. Secretary, Mr. F. M. Royle.

On Tuesday, March 28, the Society concluded their winter session with a smoking concert at Calvert's Café, when all the designs sent in competition in the Designing Club and the measured drawings submitted for competition were exhibited. There was an attendance of nearly fifty, and during the evening an excellent musical programme was gone through. The President, Mr. Robert Evans, jun., in presenting the prizes, remarked that he had no hesitation in saying that the work submitted to the Nottingham Architectural Society by the Nottingham students was quite equal to the best submitted to the Royal Institute in London. This year the work was of such excellence that the Society had increased the value of two of the prizes, and, personally, he wished he could have given every competitor a prize, but he was pleased to present the following:—

For the best set of designs: 1, Mr. W. L. B. Leech; 2, Mr. T. C. Howitt.

For the measured drawings: 1, Mr. F. E. Collington, for a beautifully-drawn set of Hawton Church; 2, Mr. T. H. Whittaker, for drawings of the Chapter House at Southwell; 3, Mr. T. C. Howitt, for drawings of the old School House at Risley; and highly commended the drawings of Wingfield Manor by Mr. E. B. Crossland, and of the York Gate on the Thames Embankment by Mr. G. M. Eaton.

The President announced the dates of the annual meeting and the inspection of the Water-Colour Exhibition at the Castle Museum.

The Royal Institute of the Architects of Ireland.

An ordinary meeting of the Council of this Institute was held on Monday last at No. 31, South Frederick-street, Dublin. The President, Mr. A. E. Murray, R.H.A., F.R.I.B.A., was in the chair, and there were also present:—Messrs. W. Kaye-Parry, F. G. Hicks, Lucius O'Callaghan, C. H. Ashworth, G. P. Sheridan, C. J. MacCarthy, R. Caulfeild Orpen, A. G. C. Millar, J. H. Webb, H. Allberry, and C. A. Owen, Hon. Secretary.

A large amount of correspondence was dealt with, and some financial business concluded. A subscription to the Architects' Benevolent Fund was sanctioned. The report of the Examination Committee was again under consideration and, with a small amendment, was passed. The Committee was asked to prepare a list of examiners and to suggest a date for the first examination. A report from the Arts Committee with reference to the portraits of Past-Presidents and Vice-Presidents was adopted. The by-law as to the admission of members was under review. The next general meeting was fixed for 4.30 p.m., April 11.

THE SOCIETY OF ARCHITECTS: SCULPTURE, CARVED ORNAMENT, AND ARCHITECTURE.

At a meeting of the Society of Architects on March 9 Mr. W. S. Frith read a paper on "The Relation of Sculpture and Carved Ornament to Architecture." In the course of his remarks he said:—

"The discussion of the relation of sculpture and carved ornament to architecture is necessarily directed mainly to that interesting series of instances where the art of form finds its fullest expression through the

harmonious co-operation of both its branches, for, though sculpture and architecture may each have their own definite sphere, and are in that sense independent of the other, it is when acting together in harmony that each is recognised as attaining to its highest achievements.

These periods illustrate that architecture and sculpture being phases of one art, their excellence is largely interchangeable, and that when working in entire sympathy and understanding the art of form is effectively presented, because it is then presented in its entirety.

The Egyptian, the Assyrian, the Greek, the Roman, the Gothic, the Renaissance periods are all distinguished by the presence of an adequate sculpture, in sympathy with the æsthetic theme of the architecture much in the same way as a song and its accompaniment.

In dealing with sculpture in relation to architecture it may be well to consider the question of general principles, for in reviewing the various works of the past we seem to need a guide to consecutive thought other than that supplied by the purely historical aspect.

Though the spirit of art is indefinable, and may be considered as a vision apprehended not by any means by the eye alone, the efforts to realise this vision, which result in works of art, are found to conform to certain general rules, with reference to which in reading a musical book lately I found a definition of the qualities a work in that form of art should possess, which seem to me to the point; it commenced by saying form, expression, feeling, and variety were essential. *Form*, the shape presented to the mind; *expression*, the prominence given to some sounds and the subordination of others; *feeling*, the character of the effect produced; and *variety*, to prevent the work becoming mechanical and so lifeless. It further states a melody should display amidst all its features and phases an all-pervading unity and relationship among its several parts. The text then proceeds in criticism of a certain arrangement, as wanting in design in its form, regularity in its expression, stability or clearness in its feeling, and method in its variety. These directions seem so admirably adapted to the art of the sculptor and carver that they might well have been written expressly for him, except that being written about musical composition they make no mention of the artists' hand.

I do not suggest that the musical world in any way overlooks this, the human executant element, but that in the graphic and plastic arts it necessarily occupies a very important place indeed. In such an example as the Certosa at Pavia I think it can be claimed that the all-pervading unity and relationship is preserved, and that the less important elements are treated with due subordination, that the varied textures and minor ornamentation are treated in an interesting and able way, indicating great ability in design and very skilful execution.

Lord Bacon in one of his essays remarks: 'There is no beauty but hath some quality of strangeness in it.' I think it may also be said that we do not recognise beauty in that which is altogether strange, and it is the just proportion of strangeness harmonised with that which is familiar which constitutes the charm.

How is this charm of the familiar and the new to be obtained? By a search through the realms of Nature, by developing a helpful imagination, and by acquiring the power to imitate, together with the power to invent, and to express or rather to reveal your discoveries with a skilful hand. Imitation alone is not sufficient, it must be balanced and controlled; in the Gothic period the direct imitation of leaves as in early Decorated soon ceased to satisfy, and developed into the more rhythmical Perpendicular.

In the Renaissance period the most satisfactory arrangement of ornament was found to be (where direct imitation was used at all) to obtain the necessary architectural quality by a considerable dominance of conventional form, and this occurs even in the extremely free treatment of Grinling Gibbons.

The principles applying to the figure are not identical with those of ornament, but in the Greek work I think the contention that the earlier and less realistic work is the best fitted for architectural purposes can well be maintained.

And in the Gothic period the unity of the whole could not have been preserved except the sculptors' convention permitted the lights and shadows to be of the right size and shape and to occur in the right place—three things of which imitation can take no heed.

On this question of harmonistic treatment, which really embraces the question of distance effect also, M. Camille Mauclair writes in his work on Rodin: 'This theory to which Rodin approved of my giving the name of "deliberate amplification of surfaces" is simply the critical principle of Greek sculpture, which has been entirely misunderstood by the Academic School. That school which is supposed to honour the Greeks is really false to their spirit and their teaching. Moreover, this principle which belongs to all primitive statuary that was made for the open air is to be found among the Egyptian and the Assyrian. It calls in question the Academic Tradition, whereby exactitude is confounded with truth.' The Wellington Memorial, probably the finest monument in existence, is a further example of great care devoted to the arrangement, design, and treatment of light and shade bearing surfaces, practically coinciding with the Rodin view. Taking an example of the work of Michelangelo, it will also be found that the dominant feature is the light-bearing surface finely defined by the broad grouping and design of the shadows, and, indeed, this may be accepted as one of the most important elements in the means of expression of the art. This may be considered as rather appertaining to the craftsmanship; of course, craftsmanship is, after all, only the servant, something more is required in a work of art, something on which the human mind can work, for in all real art it is essential that underlying the mere representation the working of the directing mind and the touch of the executing hand should be evident. In certain work the skill of the hand is alone sufficient to justify the work; in the Roman stucco, for instance, how great a charm is imparted by the hand traces left upon them!

In the work of Rodin, how much does it owe to the same cause; and in the work of Michelangelo, how do those parts so called unfinished yield traces of his consummately skilful hand moving as directed by his mighty brain—it brings the thing home to us and seems to place us in immediate touch with the artist working at those grand conceptions, which for four hundred years have filled so large a space in the history and development of art; and, to use a hackneyed phrase which expresses nevertheless a profound truth, supplies the 'touch of Nature that makes the whole world kin.'"

GENERAL NEWS.

Good Friday Week.

In consequence of the Easter Holidays, we go to press a day earlier than usual next week, the *Builder* being published on Thursday. All communications must reach the Editor by first post on Wednesday morning.

A Sad Fatality.

The sympathy of the friends of Mr. S. Perkins Pick (of the firm of Messrs. Everard & Pick, Leicester) will be extended to him in the loss of his daughter, Miss Annie Ivens Pick, aged 24, who was killed by falling from a taxicab on the Embankment, near Charing Cross.

The International Building Trades Exhibition.

Arrangements with the authorities at Olympia have been made to take possession on Monday, April 10, instead of Wednesday, April 12, as previously announced. Exhibitors are asked to take advantage of this concession, and see that all work is absolutely finished by Friday, April 21.

The Admiralty Extension Arches.

The wrought-iron and bronze gates which form part of the Victoria Memorial scheme, and now stand in the arches of the Admiralty extension, have been executed by Messrs. Strode & Co., of Osnaburgh-street, Regent's Park, from the designs of Sir Aston Webb, R.A. The centre gates are 34 ft. high and 20 ft. wide. The Royal Arms, the grille, and the wreaths on the gates are executed in cast bronze.

Victoria and Albert Museum.

Mr. Sydney Vacher has recently presented to the Victoria and Albert Museum a series of studies of Pompeiian Ornament and Mural Decoration made by him in 1879; and a number of these have now been arranged for exhibition in the Department of Engraving, Illustration, and Design (Room 70). Among other additions to the exhibition rooms of this department are a series of tracings of Old English stained glass, chiefly from the Minster and other churches in York, by Mr. Lawrence B. Saint (Room 71).

New Bell, Southwark Cathedral.

The "King Edward VII." bell, a recasting of the great tenor bell, has just been dedicated. The casting was done in the foundry of Messrs. Mears & Stainbank; the bell measures 5 ft. 4 in. high and 5 ft. 7 in. at the bow; it weighs about 2½ tons, and its note is B flat.

King Edward VII. Memorials.

A bust of the late King has been sculptured for the Mercers' Company by Mr. Alfred Drury, A.R.A., and will be exhibited in the Royal Academy rooms. Countess Feo Gleichen is the sculptress of the statue which will be erected on a site in front of the King Edward VII. Hospital, Windsor. M. Julien Wendricks is appointed as the architect of the monument which it is proposed to erect near the battlefield of Waterloo. Proposals are made to provide a site for the London memorial by demolishing the remaining houses of Charing Cross, between Cockspur-street and the entrance into the Mall.

Projecting Signs, etc., in the City.

The Committee of the House of Lords, of which Lord Kintore is the Chairman, have ordered to be reported to the House for third reading, the City of London (Various Powers) Bill. An amendment of clause 21 has been made whereby the Corporation will be empowered to frame by-laws to control the erection of projecting signs and notices, and to dispense with the regulations in respect of particular classes of projections provided the by-law allowing exemption shall specify the particular kind of projecting sign or notice to which it applies.

The Sir Francis Galton Bequest.

The Senate of London University have accepted from the executors under the will of the late Sir Francis Galton an offer to present a bronze bust of the founder of the Galton Professorship of Eugenics; Sir George Frampton, R.A., is the sculptor of the bust. The authorities will make an appeal for contributions to a sum of 15,000*l.* for the building and equipment of a new Galton Laboratory for carrying out the objects of the bequest.

British Art at the Rome Exhibition.

Sir Isidore Spielmann, Commissioner-General for Great Britain, British Section, Fine Art Exhibition, Rome, writes to the *Times* with reference to a recent article in our contemporary upon the British Section of the International Fine Arts Exhibition, and to add the following names to those already mentioned who have also rendered valuable service to the Royal Commission at the Exhibitions Branch of the Board of Trade:—

"Sir Ernest Waterlow, R.A., P.R.W.S., Mr. Frank Walton, P.R.O.I., Mr. Francis Bate, N.E.A.C., Mr. Robert Noble, R.S.A., have come to Rome to arrange and hang the pictures by living artists; Mr. A. G. Temple, Director of the Guildhall Art Gallery, the works by deceased artists; Mr. Frank Short, R.A., P.R.E., the works in black and white and the architectural drawings; and Sir Charles Lawes-Wittewronge, P.S.B.S., and Mr. Derwent Wood, A.R.A., who have arranged the sculpture. Dr. G. C. Williamson kindly undertook the selection and the arrangement of the miniatures by old masters. Mr. Hippolyte Blanc, R.S.A., a member of the Royal Commission, acted in Scotland for the Executive Committee, and had the assistance of Mr. A. K. Brown, R.S.A., Mr. Robert Gibb, R.S.A., Mr. Robert Noble, R.S.A., Mr. J. L. Caw, Mr. P. Macgillivray, R.S.A., and Mr. B. Rhind, R.S.A., in the selection of the works by Scottish artists; and other members of the Executive Committee who have also contributed to the success of the Section are Sir Luke Fildes, R.A., Mr. Frank Dicksee, R.A., Mr. Thomas Brock, R.A., Sir James Linton, P.R.I., Mr. Ernest George, A.R.A., Sir Alfred East, A.R.A., P.R.I.B.A., Mr. William Strang, A.R.A., Mr. Coutts Michie, and Mr. Walter Crane."

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held at the County Hall, Spring-gardens, S.W., on Tuesday, Mr. Edward White (Chairman) presiding.

MORELAND-STREET SCHOOL, FINSBURY.—The Education Committee recommended and it was agreed that, in connexion with the structural improvement of the Moreland-street School (Finsbury, E.), an additional entrance from the playground be provided for the infants' department; that the consent of the Board of Education be sought to the revised plans; and that the work be executed by L. H. & R. Roberts, the contractors for the improvements, at a cost not exceeding 131*l.*, as a variation on their contract.

PROPOSED ENLARGEMENT OF SCHOOLS.—The same Committee recommended that the Faunce-street School (Newington W.) be enlarged by the provision of about 125 additional places, and that the Cormont-road School (Brixton) be enlarged by the provision of about 384 additional places.

The proposed new school on the Venetian-road site (Norwood) will provide accommodation for 840 children, and we are advised that the Faunce-street School can be enlarged by 125 places. The remaining deficiency can be conveniently met by the enlargement of the Cormont-road School.

The same Committee also recommended:—That a public elementary school for about 520 children be provided on the site of the "Ravensbourne" School (Deptford); that the Randall-place School (Greenwich) be enlarged by about 250 places; that a central school for about 260 girls be provided at Royal-hill (Greenwich).

PURCHASE OF SITE FOR HOSPITAL.—The Asylums Committee recommended that, subject to the approval by the Secretary of State of the necessary contract for purchase, the estimate of expenditure on capital account of 10,200*l.* submitted by the Finance Committee in respect of the purchase of a site at Denmark-hill for the proposed mental hospital, towards the cost of which Dr. Henry Maudsley has promised a contribution of 30,000*l.* be approved as an estimate of costs, debt, or liability.

This was agreed to.

WESTMINSTER IMPROVEMENT.—The Improvements Committee recommended that the tender of W. H. Wheeler & Co., Ltd., amounting to 1,802*l.* 2s. 1d., to execute the paving, etc., work, needed for the formation of a new street from Smith-square to Tufton-street, Westminster, be accepted; that the solictor do prepare, and obtain the execution of, any necessary contract to give effect to the tender; and that the seal of the Council be affixed to the contract.

The tender was accepted.

THEATRES, ETC.—The Theatres and Music Halls Committee reported that they had approved of the following drawings:—London Exhibitions Buildings, Earl's-court—provision of a new gateway at the West Kensington entrance; London Palladium—provision of a cinematograph chamber; Middlesex Music Hall—alterations to the stage exits; Palace Islington—provision of a cinematograph chamber; Queen's Hall, Peckham—electric lighting installation; Royal Victoria Hall, Waterloo-road—provision of a permanent cinematograph chamber; Woolwich Hippodrome—provision of a cinematograph chamber.

ADELPHI THEATRE.—The same Committee recommended, and it was agreed, that the Council has no objection to the alterations proposed to be made at the Adelphi Theatre, Strand (Mr. J. Emblin Walker).

PARAGON THEATRE OF VARIETIES.—The same Committee also recommended that the Council has no objection to the alterations to the conveniences at the Paragon Theatre of Varieties (Mr. C. G. Smith).

The recommendation was agreed to.

SAVOY THEATRE.—It was also recommended and agreed that the Council has no objection to the alterations proposed to be made at the Savoy Theatre, Strand (Mr. A. B. Jackson).

TOWN HALL, ST. MARYLEBONE.—The Finance Committee recommended that the borrowing by the St. Marylebone Metropolitan Borough Council of 40,000*l.* for acquisition of a site for a new town hall within the borough be sanctioned.

The loan was agreed to.

A MID-VICTORIAN AEROPLANE.

VISITORS to the Boat Race last Saturday had an opportunity of seeing the skilful manœuvres of several flying-men, and many people must have compared the newest with one of the oldest means of transit. The idea of the aeroplane is not so new as perhaps is generally supposed. Readers who will turn to the *Builder* of April 1, 1843, p. 94, will find particulars of the "Aerial Steam Carriage" which caused our fathers to proclaim that inventors, hitherto baffled, had achieved their object at last. But Mr. Henson's machine, which was surprisingly like those we see now at Brooklands and elsewhere, was deficient in motive power probably: for not until the last few years have aeroplanes been brought into successful use. Perfection has not yet been obtained, of course, and flying, which has become a recognised if sporting means of travelling, will be developed beyond the limits imposed by science at present. The time will come doubtless when the epoch-making flights of the XXth century will seem insignificant, and with such progress will come, too, freedom from the death-penalty which has been paid by such intrepid pioneers as the Hon. C. S. Rolls, to whom a memorial is to be dedicated at Dover. Meanwhile the illustration of the machine described sixty-eight years ago may be of interest from a prophetic if not wholly from a practical point of view. Some centuries ago the versatile Leonardo da Vinci conceived a flying machine on bat-like principles.

BOOKS.

Memorials of Old Lincolnshire. Edited by E. M. Sympson, M.A., M.D. Demy 8vo. (London: George Allen & Sons, Ruskin House, Rathbone-place, W. 15s. net. With many illustrations.)

THIS is another volume of that valuable series of the memorials of the counties of England. It is more than usually full of architectural matters, partly because the county is particularly rich in fine churches, and for the reason that the editor has obtained the assistance of contributors who write with a full knowledge of the architectural memorials of the county. The Minster has been "deliberately omitted," to quote the editor's words, "as it could not be treated of piecemeal," and though it is unfortunate, perhaps, that some general consideration has not been given to this noble building, no doubt there is much justification for its exclusion. The fact is the memorials of Old Lincolnshire were too numerous for the usual treatment in this series, for the monastic institutions of the county have had to be passed by, and the city of Lincoln, except as it appeared in Roman times, has not been dealt with. But these omissions were more or less inevitable, and a brief mention of some of the chapters and their authors will show how varied is the information contained in the work, and what capable hands have been engaged in writing it. The editor himself writes on Tattershall Castle and Church and mediæval rood-screens and rood-lofts in Lincolnshire churches; the late C. Hodgson Fowler, F.S.A., has a brief account of Kirkstead Chapel; and the churches are dealt with in the following articles:—"Saxon Churches," by A. Hamilton Thompson, M.A.; "South Lincolnshire Churches," by W. E. Foster, F.S.A.; "The Church of St. Andrew, Heckington," by W. G. Watkins, A.R.I.B.A.; "Boston and its Church," by G. S. W. Jebb, M.A.; "The Town and Church of Grantham," by A. Hamilton Thompson, M.A.; and "Stamford," by V. B. Crowther-Beynon, M.A., F.S.A. The Sepulchral Brasses are dealt with by the Rev. G. E. Jeans, M.A., F.S.A., and other chapters include:—"Prehistoric Lincolnshire," by the Rev. A. Hunt, M.A.; "The Romans in Lincolnshire," by the Rev. E. H. R. Tatham, M.A.; and "Doddington Hall," by the Rev. R. E. G. Cole, M.A. The volume, the "get-up" of which is admirable, contains some excellent photographic illustrations, the whole work forming a worthy addition to the volumes of the series already published, and one which the editor and his contributors, not forgetting the general editor, the Rev. P. H. Ditchfield, M.A., may be congratulated.

City of London Year-Book and Civic Directory. (London: Messrs. W. H. & L. Collingridge, Aldersgate-street. 5s. net.)

THE 1911 edition of this work has been issued. It is a work of reference that forms a guide to the municipal, commercial, and social life of the City, and is of value for the information it affords. The municipal section gives lists of the members of the Coroporation and the London County Council, and also contains articles detailing the past year's work of those two bodies. Further information concerns the several other rating authorities of the City and Metropolis. Another feature is the City Guilds' section, which details the history, and shows the present-day activities as regards trade association, educational work, and charitable endeavours. A list of City churches, with the names of the incumbents and curates, are given. The work contains much other useful information, and we have pleasure in calling attention to the new issue.

BOOKS RECEIVED.

WILLIAM FORD STANLEY: HIS LIFE AND WORK. Edited by Richard Inwards, F.R.A.S. (London: Crosby Lockwood & Son. 2s. 6d. net.)

"THE STUDIO" YEAR-BOOK OF DECORATIVE ART: A Review of the Latest Developments in the Artistic Construction, Decoration, and Furnishing of the House. (London: Offices of the *Studio*, No. 44, Leicester-square, W.C. 5s. net.)

CITY OF LONDON YEAR-BOOK AND CIVIC DIRECTORY, 1911. (London: Messrs. W. H. & L. Collingridge, Aldersgate-street. 5s. net.)

FIFTY YEARS AGO.

From the *Builder* of April 6, 1861.

Land Transfer.

THERE are few subjects that appeal more directly and substantially to *self* than the gradual but certain advance in the value, commercially speaking, of landed property. The certainty of Consols and funded property will at all future time, as hitherto, make them the resource for the savings and hoardings of certain timid investors, as well as for trustees, who may be bound to embark the trust moneys in accordance with the testators' directions, and many others; even though the result be that the capital produces but half the income that it would if otherwise invested, as saving all anxiety, trouble, fear of losses from defrauding tenants, depreciation of value, or other unforeseen causes. Many years have passed since we have been promised an effective measure to insure a cheap and easy transfer of land. When we purchase a property to suit, and are dealing with the admitted owner, who has been in receipt of rents perhaps for years, why should not conveyance or transfer be made in four or five lines, containing a description of the property and place and the purchaser in possession? This system is owing entirely to the apathy of the people; and so accustomed is a purchaser to submit to delay and heavy bill of costs in a purchase, before he feels that he is really the owner, that if the transaction were simplified to something like drawing a bill of exchange, the purchaser would not rest satisfied that his holding was safe; and, in fact, would still look for all the papers, deeds, wills, and other mysteries belonging to former owners, and as such to be recited to form part of the title and to be engrossed on several sheets of parchment, which, if read over, are seldom understood by the different parties affixing their signatures thereto. And not only are these forms expensive to a purchaser; but, if he require a little assistance by way of mortgage the same process of delay and expense is to be incurred. All the true reformers seem united in the feeling that this state of the law ought to be altered, and that the time for delay has passed away.

EDITORIAL SUMMARY.

Our leading article is entitled "Architecture in Paintings," and is based on the lecture at the Architectural Association on Monday by Professor Selwyn Image.

"Architects and Sculptors" is the title of an article on p. 418, dealing with the views expressed in Professor Colton's Carpenters' Hall lecture, reported on p. 438.

"Notes" include: "Ecclesiastical Painting"; "The London Memorial to Edward VII."; "Pope's Villa, Twickenham" (p. 418).

Notices of the Royal Institute of Painters in Water-Colours and the Goupil Gallery Exhibitions will be found on p. 419.

At the meeting of the Architectural Association on Monday Professor Selwyn Image, Slade Professor at Oxford, lectured on "Architecture in Paintings," and showed upon the screen several illustrations in which architecture was represented (p. 419).

A report of the fifth Spring Visit of the Architectural Association, to the Royal Academy of Music in Marylebone-road and the Swedish Church, Harcourt-street, Marylebone, will be found on p. 424.

A brief report of Mr. W. S. Frith's lecture on "Sculpture, Carved Ornament, and Architecture," read before the Society of Architects, appears on p. 425.

Brief reports of recent meetings of the following provincial Societies appear on p. 425: "Liverpool Architectural Society"; "Nottingham Architectural Society."

In our Correspondence Column (p. 428) letters will be found on: "Pagan Temples *v.* British Architecture"; "The Building Trades Exhibition"; "Employment in the Argentine."

The Monthly Review of Civic Design (p. 429) includes: "Bolton Improvement Scheme," with illustrations; "The Suburban Front Garden"; "The New York Municipal Exhibition"; and "Notes."

The Building Trade Section (p. 434) includes: "Workmen's Compensation Cases"; "Manufacture of Portland Cement"; "The Builders' Clerks' Benevolent Institution Dinner"; "Projected New Buildings in the Provinces"; "Limewashing, etc."; "Applications under the 1894 Building Acts," etc.

The last Carpenters' Hall lecture for the present session was held on Wednesday last week, when Professor W. R. Colton, A.R.A., lectured on "Decorative Sculpture," and showed a fine set of lantern slides in illustration of his subject (p. 438).

In our Law Reports (p. 441) will be found "Rose *v.* Hyman" (Converting a Chapel into a Theatre).

MEETINGS.

FRIDAY, APRIL 7.

Royal Institution.—Professor Sir J. J. Thomson, M.A., on "A New Method of Chemical Analysis." 9 p.m.

Royal Sanitary Institute.—Mr. J. E. Worth on "Sewage Disposal." 7 p.m.

Institution of Civil Engineers (Students' Meeting).—Mr. E. E. Farrant on "Retaining Walls." 8 p.m.

SATURDAY, APRIL 8.

Liberal Christian League Lectures (at the Studio, Oak Tree House, Branch-hill, Hampstead).—Mr. Henry Holiday on "Influence of Social Systems on Art, Beauty, and Grace in our Lives and Manners." 8 p.m.

MONDAY, APRIL 10.

Royal Institute of British Architects.—(1) Business meeting. The Chairman to move the following resolution:—"That this meeting hereby confirms the resolution passed at the special general meeting of March 20, viz., 'That under Clause 1 of the Supplemental Charter of 1908 the Council be authorised to elect Licentiates of the Institute until the end of June, 1912.'" (2) A special general meeting to lay before the members of the Royal Institute the general principles of a Registration Bill prepared and approved by the Council, and to obtain the approval by the general body of proposals for the incorporation of the Society of Architects in the Royal Institute. 8 p.m.

Incorporated Clerks of Works' Association (Carpenters' Hall, London-wall).—Twenty-eighth annual meeting. 7 p.m.

Guild of Architects' Assistants (No. 17, Fleet-street, E.C.).—Mr. H. Cox on "The Guild and its Objects." 7.30 p.m.

Bristol Society of Architects.—General meeting. President's conversazione and exhibition of drawings, etc. 8 p.m.

Royal Sanitary Institute.—Mr. J. E. Worth on "Water Supply: Sources of Supply and Distribution." 7 p.m.

TUESDAY, APRIL 11.

Junior Institution of Engineers (at Institution of Electrical Engineers, Victoria-embankment).—Paper on "Recent Progress in Aeronautics," by Major B. Baden-Powell. 7.30 p.m.

Architects' Benevolent Society.—Annual general meeting of subscribers and donors at the rooms of the Royal Institute of British Architects. 5 p.m.

Institution of Civil Engineers.—Papers to be further discussed:—(1) "The Improvement of Highways to Meet Modern Conditions of Traffic," by Mr. J. W. Smith; (2) "Recent Development in Road Traffic, Road Construction and Maintenance," by Mr. H. P. Maybury. 8 p.m.

WEDNESDAY, APRIL 12.

Institute of Sanitary Engineers.—Mr. Leon Gaster on "Hygienic Aspects of Illumination and the Progress in Illuminating Engineering." 8 p.m.

Edinburgh Architectural Association.—Annual business meeting.

Royal Sanitary Institute.—Mr. J. E. Worth on "Scavenging: Disposal of House Refuse." 7 p.m.

THURSDAY, APRIL 13.

Sheffield Society of Architects and Surveyors.—Annual general meeting.

CORRESPONDENCE.

Pagan Temples *versus* British Architecture.

SIR,—For upwards of forty years I have been reading in this journal of the beauties of English architecture. During the last twenty years, in many of our ancient cities and boroughs, it has given me great pleasure to observe the reproduction of our fine, old, half-timber work. Probably the Bene (?) Institute at Canterbury takes the lead.

Apparently other post-office authorities do not appreciate English architecture, as the following experience plainly shows:—During a recent visit to Bruges, my attention was called to the handsome new Gothic post-office there, which was designed in keeping with many of their old public buildings. Upon landing on my native shores, the first public building I entered was a new post-office, the portico of which was an "Inigo Jones" watergate, a part of the upper story being a section of the Doge's Palace (Venice). In addition to a few details of Diana's Temple, there was a group of miniature Caryatides, also a dash of the Temple of Minerva Polias. A small pediment was pierced by the prow of a Roman galley, and the principal pediment surmounted by a saucer dome supported by Corinthian pillars of a pronounced entasis of Berlin classic, in addition to the usual egg and tongue enrichments. If this building could only be reproduced in the Mall near the Victoria Memorial we should hear no more complaints regarding the design of public memorials.

EDWARD VALE.

Weston-super-Mare.

Employment in the Argentine.

SIR,—I was somewhat surprised to read the letter appearing in your last issue under the above heading, and can only think that "Buenos Aires's" acquaintance with the country must be a short one. To justify my own views I may state that I have lived in the Argentine Republic for fifteen years, and have been twice President of the "Sociedad Central de Arquitectos," which is the professional governing body, and am also a professor in the architectural schools of the University.

Your correspondent is quite misinformed as to the laws of the country being framed to bar the foreigner, the real position being as follows:—Any person choosing to do so, can freely practise as an architect, but he cannot submit plans for approval to any Government office or the Municipality of Buenos Aires unless they bear the signature of some architect or engineer duly qualified in the country or of some registered builder. This condition is insisted upon, as the signer of the plans is personally responsible for defects in construction and fines for any breach of Municipal regulations, and the rule seems to be a reasonable one.

To obtain recognition by the Government, any architect coming from a known foreign school, such as the R.I.B.A. or the Ecole des Beaux-Arts, is required to produce his papers and submit to a qualifying test by the University, which merely consists of designing a given subject set by the examiners, which must be drawn within University precincts, ample facility being given to the candidate to bring with him his own books of reference and tables, etc.

Having satisfied the examiners that he really is an architect, he has merely to pay the University fees, and receives his diploma; his name is in future included in the printed Government lists, and, should he so desire it, he is eligible for election to the "Sociedad Central de Arquitectos" (commonly referred to as the "S. C. de A."), but this is a matter for his own choice, as he incurs no disability in practising outside of it.

As, however, I have already stated, the practice of the profession can be made with no further formality than a brass plate and the payment of a tax of $100 a year as "patente," and, in fact, I know of at least six French architects and one English in full practice under these conditions, but, of course, they lack official recognition as such.

Turning to the question of remuneration and cost of living, I must beg to differ from your correspondent. Buenos Aires is certainly an expensive place to live in for a married man, and 300*l.* to 350*l.* a year would require careful administration. A bachelor, on the other hand, is well off on this if he is not a person of extravagant habits. The suburbs of Buenos Aires are full of "chumries," run by bachelors, and boarding-houses, where the monthly cost does not exceed $80 per head, which leave a comfortable balance of $220 to your $300 man for personal expenses, clothes, etc.

There is, of course, the language difficulty, but it would seem no more unreasonable to expect Spanish in a Spanish-speaking country than French in Paris or even English in London, and the "Spanish and Italian competition of considerable merit" should be merely an added stimulus to a healthy worker.

S. C. DE A.

The Building Trades Exhibition.

SIR,—We have read with interest the letter from "F. S. I." in your issue, March 31, and shall be glad if you will inform your correspondent that if he should inspect the various roofing materials we are exhibiting at Olympia he shall not be worried in the manner he describes, but that we hope, should he see anything of interest regarding which he desired information, to have someone in attendance at the time in a position to reply to his inquiries.

ROBERTS, ADLARD, & Co.

COMPETITION NEWS.

School, Earlsdon.

In the competition for elementary schools, Centaur-road, Earlsdon, the design provisionally selected was sent in by Mr. Frederic Foster, Masonic-chambers, Coventry.

Hampstead Garden Suburb School.

The Hendon Education Committee has approved a report from the Sub-Committee appointed to consider competitive plans for the Hampstead Garden Suburb school. Mr. W. G. Wilson, 5, Bloomsbury-mansions, Hart-street, W.C., is the successful architect. Messrs. Spalding & Myers, 36 and 37, King-street, W.C., being placed second, and Mr. John Hudson, 24, York-place, Portland-square, third. Mr. Wilson was the architect of the Council school at The Hyde.

Courts of Justice at Athens.

With reference to the international competition of plans and designs for new Courts of Justice at Athens, H.M. Minister at Athens now reports the publication of an official notice to the effect that the detailed statements of prices required by paragraphs 7, 8, and 9 of Article 8 of the original notice will not be regarded as obligatory, and that competitors therefore need not present them. Projects, accompanied with the sum of 200 drachmæ (8*l.*), will be received at the "Section d'Architecture, Service Central des Travaux Publics, Ministère de l'Intérieur," Athens, up to September 12/25.

ILLUSTRATIONS.

Council-room, Castle of St. Angelo, Rome.

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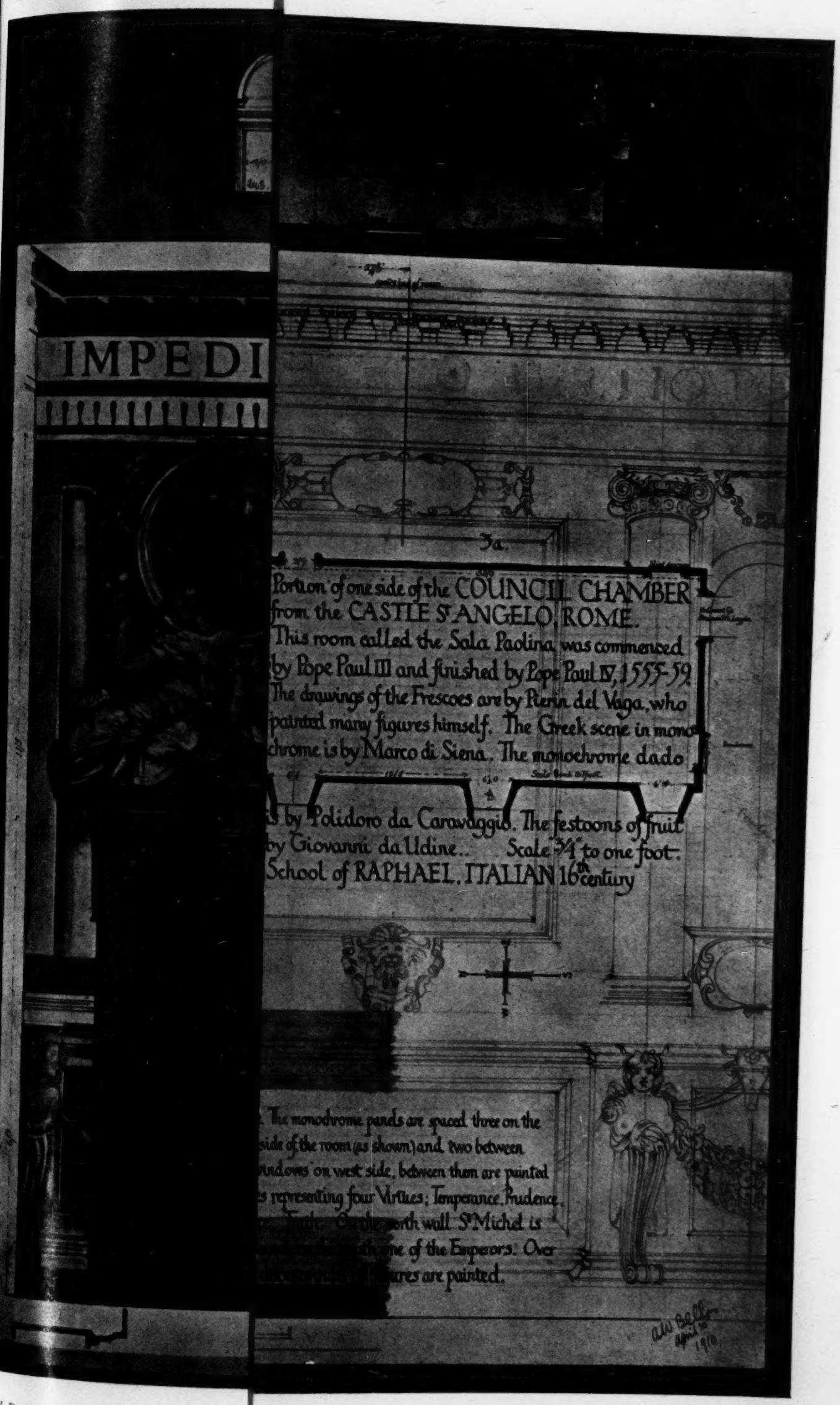
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3a.
Portion of one side of the COUNCIL CHAMBER
from the CASTLE S^T ANGELO, ROME.
This room called the Sala Paolina, was commenced
by Pope Paul III and finished by Pope Paul IV, 1555-59
The drawings of the Frescoes are by Pierin del Vaga, who
painted many figures himself. The Greek scene in mono-
chrome is by Marco di Siena. The monochrome dado
by Polidoro da Caravaggio. The festoons of fruit
by Giovanni da Udine.. Scale 3/4" to one foot.
School of RAPHAEL. ITALIAN 16th century
The monochrome panels are spaced three on the
side of the room (as shown) and two between
windows on west side, between them are painted
representing four Virtues; Temperance, Prudence,
the throne of the Emperors. Over
figures are painted.
April 30
1910

R.I.B.A. Owen Jones Prize, 1911.

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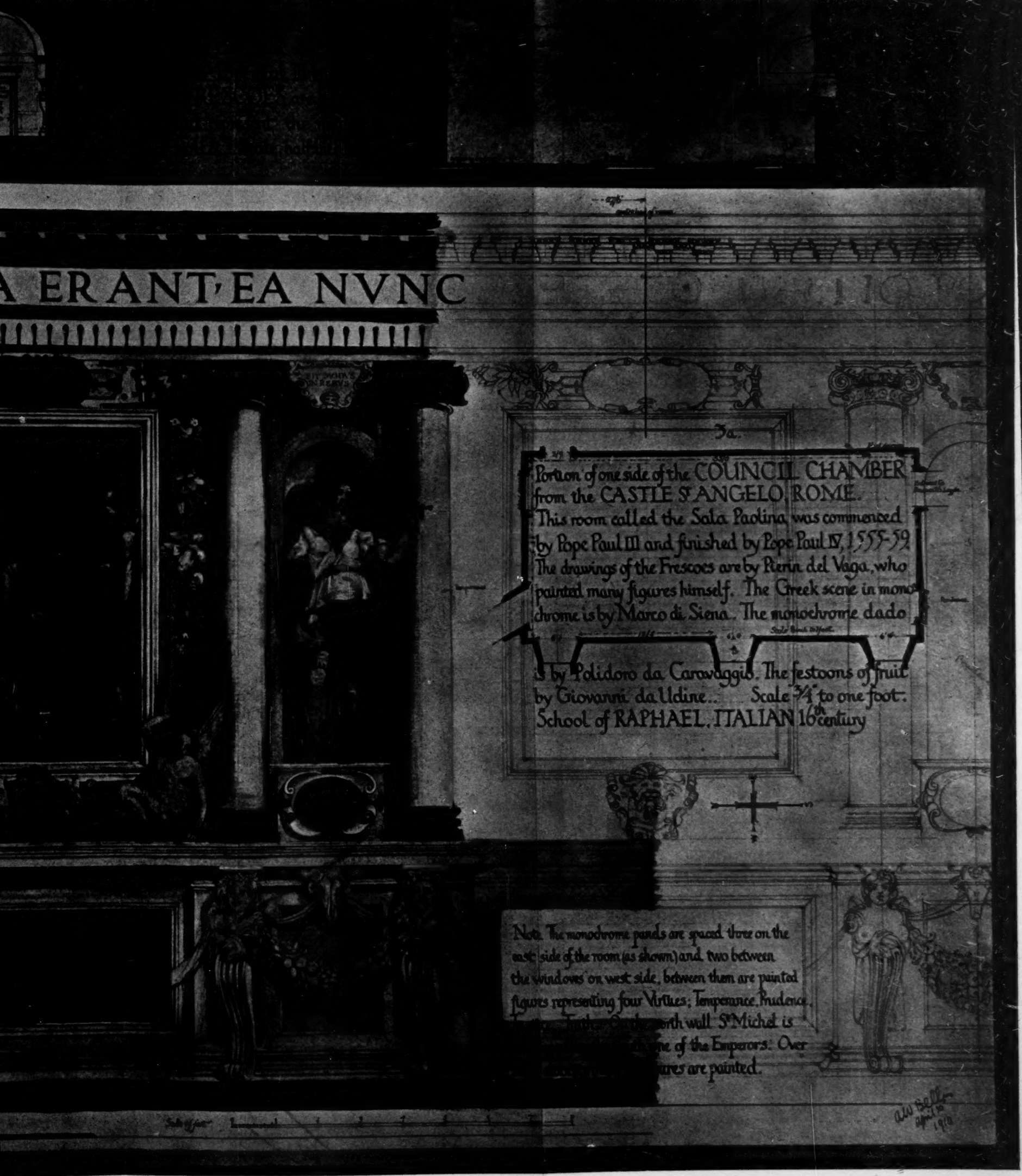
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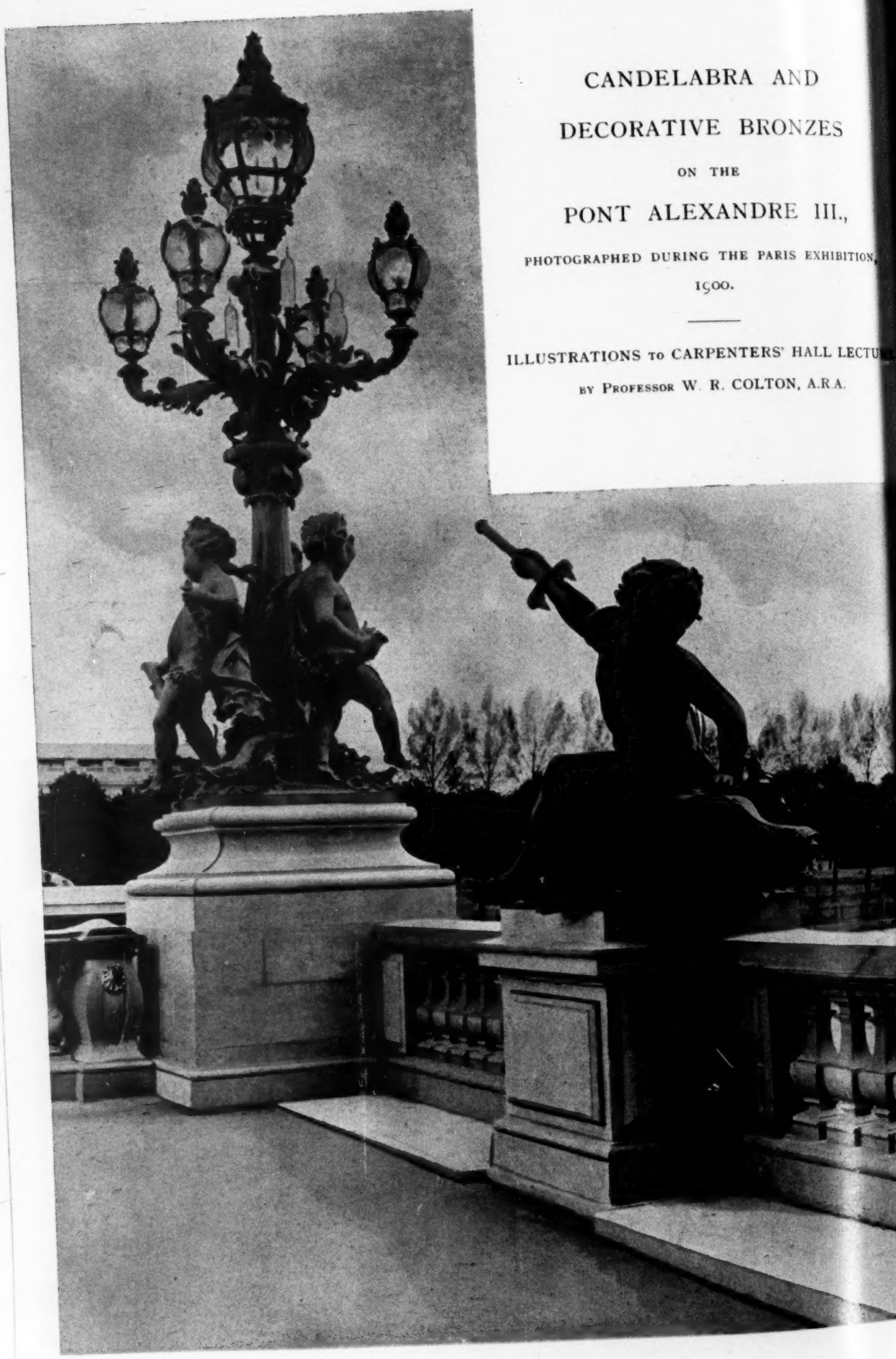
A.W. Bellis April 10 1910

ATIONS IN THE CASTLE OF ST. ANGELO, ROME.—Drawn by Mr. A. W. Bellis.

Sprague & Co., Ltd., Printers, 4 & 5 East Harding St., E.C.

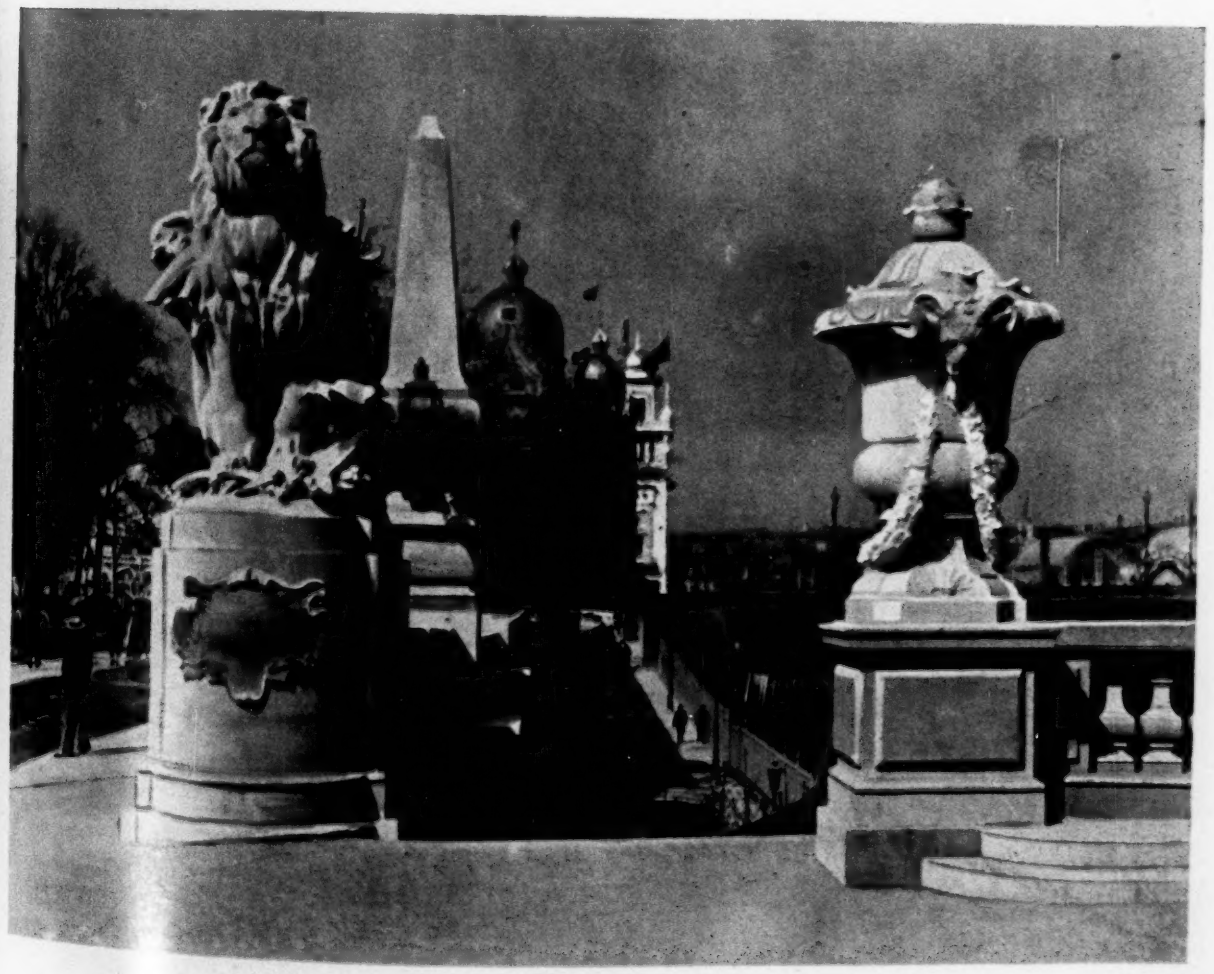


CANDELABRA AND DECORATIVE BRONZES ON THE PONT ALEXANDRE III.,

PHOTOGRAPHED DURING THE PARIS EXHIBITION, 1900.

ILLUSTRATIONS to CARPENTERS' HALL LECTU...

BY PROFESSOR W. R. COLTON, A.R.A.



DECORATIVE SCULPTURE TO THE PONT ALEXANDRE III.

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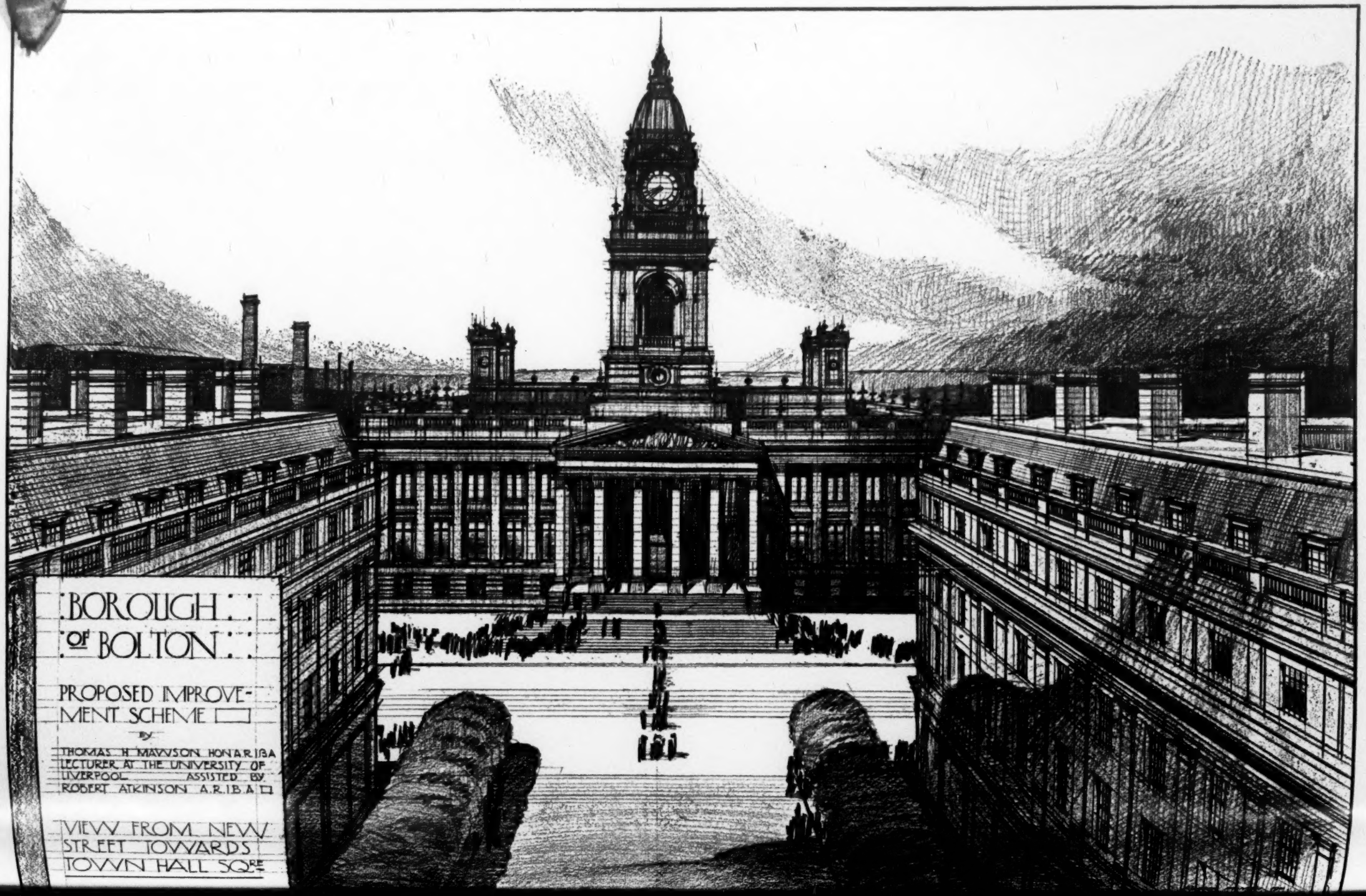
BOROUGH OF BOLTON
PROPOSED IMPROVEMENT SCHEME
BY
THOMAS H. MAWSON HON A.R.I.B.A
LECTURER AT THE UNIVERSITY OF LIVERPOOL ASSISTED BY ROBERT ATKINSON A.R.I.B.A
VIEW FROM NEW STREET TOWARDS TOWN HALL SQRE

STREET TOWARDS
TOWN HALL SQRE

BOLTON

BOROUGH OF BOLTON

PROPOSED IMPROVEMENT SCHEME
GENERAL PLAN

BY THOMAS H MAWSON HON A R I B A UNIVERSITY of LIVERPOOL
ASSISTED BY ROBERT ATKINSON ARIBA

Scale

ILLUSTRATIONS OF MR. MAWSON'S IMPROVEMENT SCHEME FOR BOLTON.

Sprague & Co., Ltd., Printers, 4 & 5 East Harding St., E.C.

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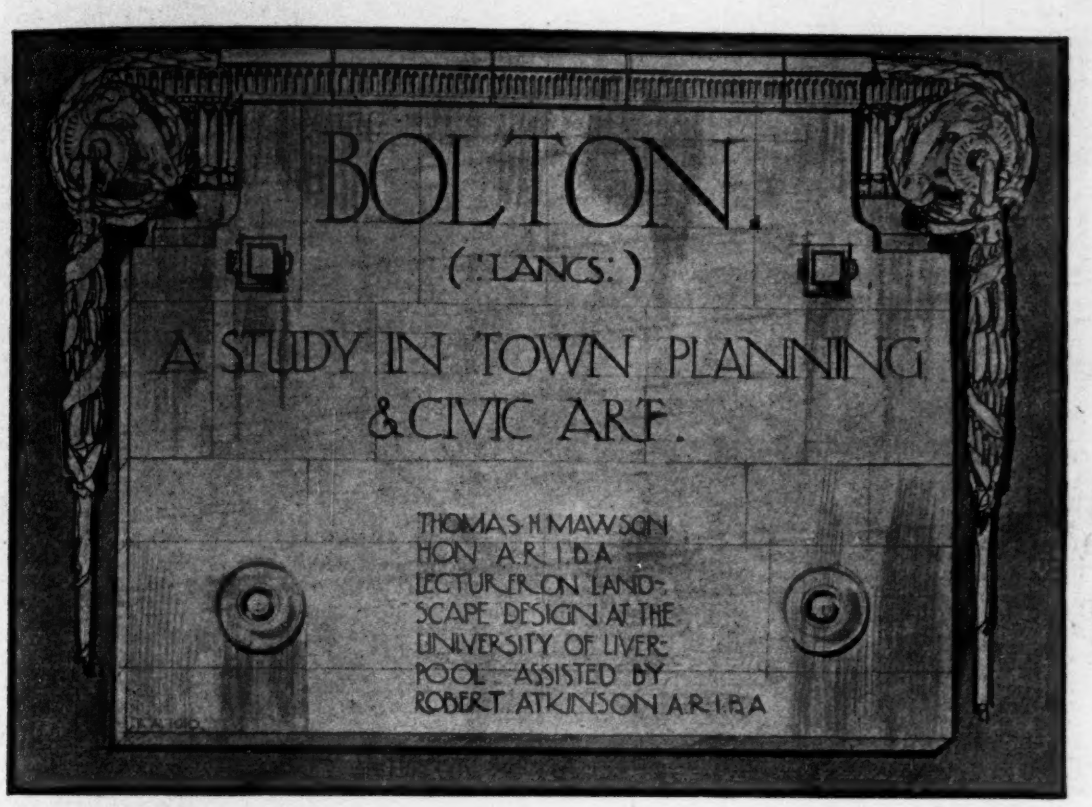
MONTHLY REVIEW · *of* · CIVIC DESIGN.



A NEW era in the development of our cities has been marked by the proposal of Mr. W. H. Lever to initiate a scheme for remodelling Bolton and to provide a magnificent museum building in conjunction with such a scheme, and in congratulating Mr. Lever on the possession of an instinct for appreciating what is at the present moment a public need, and for taking such wise steps in bringing this need within the comprehension of the average citizen, we should like to add our felicitations to Mr. T. H. Mawson and Mr. Robert Atkinson on the skill displayed in dealing with the problem presented to them.

Mr. Lever's public spirited action is on the lines of the later development in the Roman Empire, when prominent men deemed it their prerogative to provide for the embellishment of the cities with which they were connected, their gifts often taking the form of municipal improvements. It is true that in some cases these gifts were not altogether free from the taint of political motive, but in many others, as in the case of Bolton, the action was dictated by a disinterested desire for the advancement of the city with which the donor was in some way associated.

It would be of the utmost value to investigate the various methods adopted by these Roman magnates for the beautification and general development of their cities, but we cannot deal with these just now, our object being to explain the circumstances that have influenced the scheme prepared for the improvement of the centre of Bolton, as set forth in the plans, designs, and explanatory matter comprised in the book prepared by Messrs. Mawson and Atkinson.

The introductory remarks contain many interesting hints as to the characteristics of cities and the points demanding attention in municipal improvements in general, and these are followed by a detailed study of the possibilities at Bolton, from which we may quote the following as explaining the objects of the scheme shown in the accompanying illustrations :—

"In our survey of the present resources of Bolton we must carry our investigation further afield than would appear at first sight to be necessary. The truth of this will be immediately apparent when we compare Newport-street and Bradshawgate. Although the former street is dignified by the town square, and graced with one of the most beautifully-proportioned Town Halls in this country, yet the latter, although it forms no more direct thoroughfare between the centre of the town and the principal railway-station, has still developed into the main shopping street, giving the Victoria-square and Town Hall a somewhat isolated appearance, at least to those viewing the town for the first time. The reason is obvious when, as before suggested, we look further afield. The radial highways converging on Bolton are its controlling factor, causing traffic to converge more upon Bradshawgate than on Newport-street. Thus, to be thorough, we must, before proceeding to make suggestions for the betterment of the town, carry our investigations over an area practically as great as that of the Bolton tram system, noting carefully all that civic effort has accomplished in the past as well as what it may be necessary to add in the future if Bolton progresses, as it certainly will.

Bolton is fortunate in the matter of radial highways. Whether approached by tram from Manchester by the south road ; from Horwich by the west roads ; from Bury by the east roads ; or from Dunscar from the north, one cannot but be struck by the sufficiency and breadth of the main routes. It is the way in which these arteries enter the town which suggests so many other improvements, Here we are tempted to enter into the consideration of schemes of urban reconstruction far beyond what is immediately attainable, and certainly beyond the scope of this report.

Limiting the main road consideration to the town itself and its architectural and scenic assets, we find pre-eminent among the former the old Parish Church, equipped with all the glamour of the antique, and the Town Hall, a masterly and imposing pile, and second only to these, the boldly-placed infirmary buildings. Of the other scenic assets, the Queen's Park and Heaton Cemetery are the chief ; any scheme of reconstruction must obviously give to all these their fitting place in the composition, and these units, at present entirely without æsthetic connexion, must be bound into one comprehensive whole before other branch problems, however pressing, can be dealt with.

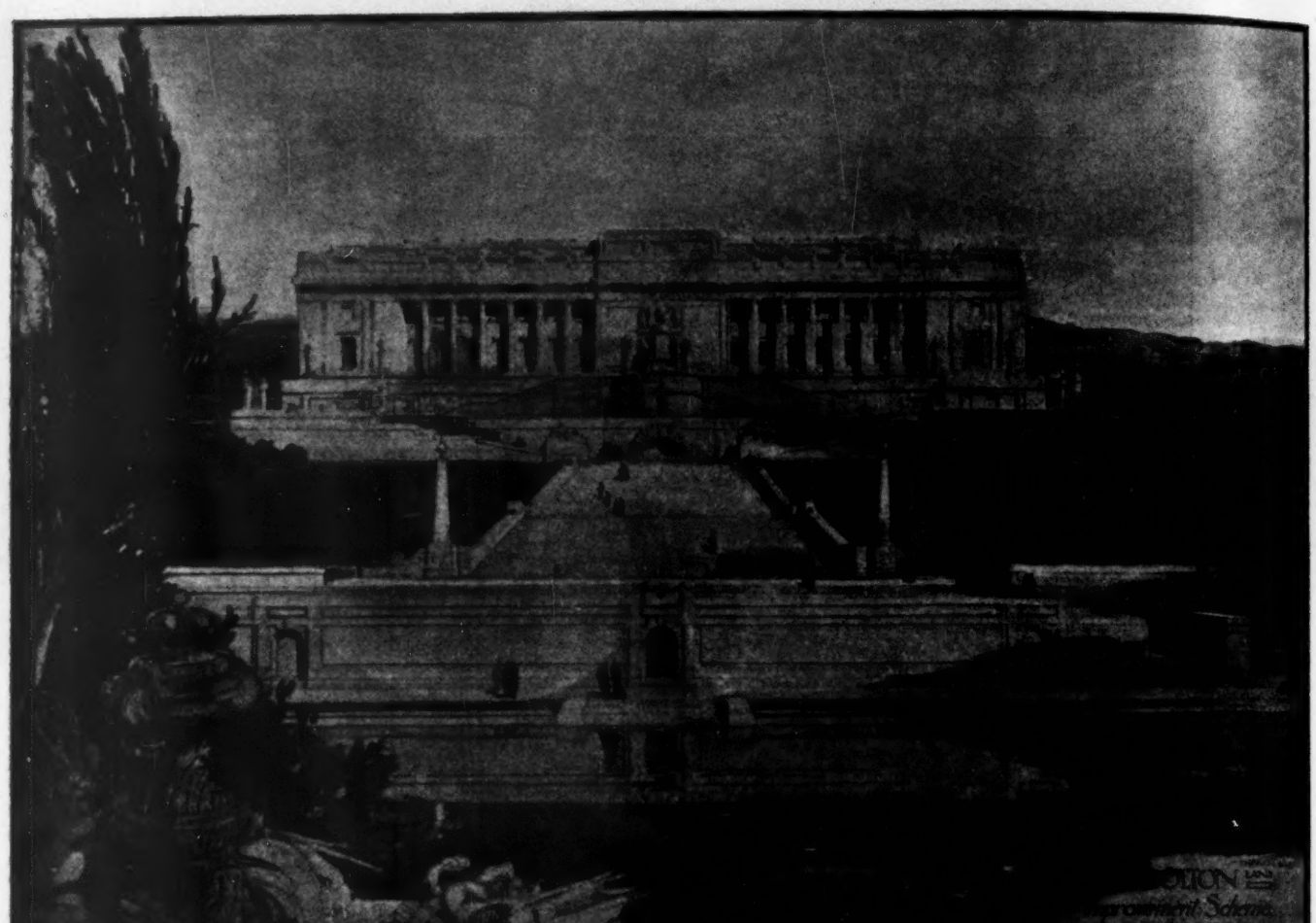
Having thus determined the scope of the scheme, and generally speaking its fixed limits, a detailed survey and scrutiny of the controlling features, and the area over which they are at present scattered, may be taken.

At one extremity of the scheme we have the Parish Church, which before the advent of modern business blocks and the overpowering massivity of the railway arches must have been an impressing dominating feature, towering above the old houses and ancient inns grouped around it in picturesque confusion. The demands of commerce and the needs of modern civilisation have, however, destroyed all this without replacing it with anything architecturally good. The attempt to make new buildings counterfeit the old, as is being done in so many German towns, can never be successful or satisfying to the artist ; we can only imitate the exterior presentment, and cannot restore the mediæval surroundings or the spirit of the antique. We must move on entirely modern lines, and let spaciousness and convenience replace picturesque disarray with studied harmony.

The Parish Church of St. Peter, which is the monument closing the vista from the Town Hall steps, was erected at a fabulous cost by a former public spirited citizen, and is one of the worthiest examples of several churches which remain to us from the Gothic revival. The precincts of the structure have been reverently dealt with by the church authorities, who have added a harmonious and massive tower and a west end during the last thirty years.

Almost midway between the Parish Church and the Queen's Park stands the Town Hall in the middle of the Town Hall-square. Between these two features exists an area of narrow, winding streets, intersected by the one broad street of modern business premises in Bradshawgate. This congested area contains some good buildings and several streets of professional and high-class business offices, and would amply repay opening out.

Admiration has been expressed for the noble proportions of the Town Hall and the



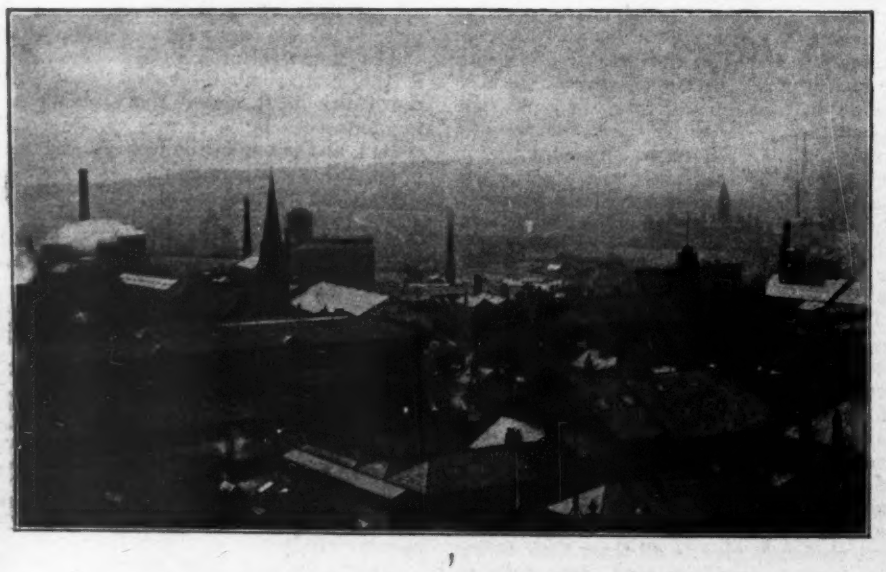
Bolton: Part of Proposed Improvement Scheme.

sense of scale in all its parts which has evidently pervaded the mind of its designer. It is further graced by several supplementary buildings in the square, notably the Public Library, which well expresses the quiet dignity of the classic. Nevertheless, the whole conveys to the beholder a sense of restriction and at the same time isolation, which is almost, if not wholly, due to the absence of approaching streets of a scale and importance in keeping with the main composition.

To remedy this a wide street is proposed from the west front of the Town Hall, sweeping in a segment to the Queen's Park, and connecting to the suggested new Causeway through the Park at its eastern extremity.

The Infirmary, Park, and Cemetery form a group to themselves at the western side of the town, and at present, although really so near to the town centre, are more or less isolated from the town itself. To remedy this defect is one of the chief objects of the scheme which we now present. The proposed road from the west of the Town Hall simplifies this connexion between two important features of the town. At present the direct route from the Park to the town is mean and disjointed in the extreme. Any improvement in this respect must inevitably benefit the Infirmary without entailing extra expense. From its position it must gain by anything which is done for the true betterment of the area under consideration.

The aspect and contours of the Park itself are unique and deserving of anything that can be done to enhance their beauty and use by rich architecture or added foliage. The present pavilion marks the highest point, and from it the ground slopes gently to the north and very steeply to the south, sheer into the stream at the bottom. Unfortunately, only sufficient has been done with the south slope to make one feel how much might be done, or just sufficient to emphasise the fact that it possesses unique possibilities. In the improvement certain distracting features ought to be masked, such as the prominent array of gasometers to the south of the Park.



Bolton: View from West Side of Town Hall.
(Infirmary in the distance.)

The Park Causeway is the only part of the scheme put forward with any pretence to finality. Even here all details have been left for future consideration, and only its main lines considered. The plans, however, do embody an all-round, thought-out workable scheme.

Before a clear understanding can be obtained of the Causeway scheme a few words as to the Park and its salient features and possibilities seem necessary. First, its lack of connexion with the town and those surrounding features which in the future ought to be welded into one grand composition—this seems to demand careful study.

The Park, or at least that portion of it which lies north of the stream, differs from most other parks in being essentially a promenade park, the attractions being those of prospect, trees, flowers, shrubs, and music. In this part of the Park there is no provision for physical recreation, nor is it essential there should be.

It follows, therefore, that the more the Park can be improved as a place for promenaders the more perfectly it will fulfil its purpose. As it becomes so improved it must attract those who are most in need of it.

To grasp the perfectly magnificent opportunity and the problem which is here presented we must first realise that with the natural and normal development of Bolton

Bolton: The Public Library.

Queen's Park will tend to become the centre of the town. Even now, if measured by a straight line, it is only six hundred yards from the Town Hall; all that is lacking is a proper connexion.

This would be at once secured by the formation of the Park Causeway, connecting by a direct line the junction of Marsden-road, St. George's-road, and Gilnow-road with the road skirting the west end of the Park, and also by the new Crescent-road which starts from the Town Hall and forms a junction with the Park Causeway (more particularly described hereafter). It will thus be realised that this roadway connects the Park to the town in a way never dreamt of by its original promoters; further, it gives a direct connexion with the Cemetery and the stretch of unspoiled, sylvan country which extends from the Cemetery to the Chorley New-road.

In the composition of the classic proportions of this great Causeway in the Park, the dominant lines of which would be pleasingly bounded by an avenue of trees, one fact has been steadily kept in view, viz., the creation of a great civic composition, the base of which is the Causeway, but the crown a classic structure which will suitably house the collection of works in the Chadwick Museum and other scattered collections and treasures.

The site of the Museum is practically level with the main entrance in Chorley New-road; the ground falls rapidly to the new Causeway, and from thence to the enlarged lake below. This fall has been seized upon to add a broad, dignified flight of steps some 30 ft. or 40 ft. wide, continued down to the level of the enlarged lake. These features which, grouped with the broad, level terraces supported by an amplitude of masonry and the commanding terrace and spacious carriage court on the south front, are sufficient to arouse any latent enthusiasm in regard to the exceptional opportunity which the site holds to amply atone for the destruction of the Chadwick Museum, providing at the same time additional space, and securing the crowning feature to the Park and the town. The resultant effect as it appeared to the designers is shown in the view, which is taken from the south side of the lake.

As planned, the building is arranged on the two axial lines, one of which extends at right angles to the Chorley New-road, and the other from the proposed new Park Causeway to the same point, the two principal elevations being parallel to the roads which they face. This parallel arrangement, and the general scale and mass, would seem to be important considerations which must be met if a satisfactory monumental expression is to be realised; but for the rest the plan, although worked out on a practical view, is merely put forward as suggestive.

One of the chief aims of this scheme is to weld the town into unity, adding the characteristic touch of like to like with the existing worthy features.

The connecting Park-crescent would secure a vista of the Town Hall and set forth its scale and proportion worthily, and at the same time it would secure the best and readiest connexion with the Park Causeway.

The Park-crescent is the most important of the several proposals for the improvement of Bolton, and the one which would prove the easiest of attainment.

More than one-third of its area is already owned by the Corporation. For the remainder it will be clear to anyone who has studied town values that with a noble crescent 80 ft. wide, terminating in such exceptionally important municipal centres, that the site values are nearly equal to the existing properties which now cover the area.

The Park Crescent-road leads as a natural sequence to the road from the Town Hall to the Parish Church, linking up the latter with the centre of municipal government. This road would give to Bolton a new street which would probably, owing to its convenient position, become the centre for the offices for insurance companies and professional men.

If this hope were realised the character of the flanking architecture would be assured.

In the plans which show the Town Hall-square the existing building line has been adhered to, but the extension of the line of Market-street to its junction with Back Cheapside would lead to a further improvement, one end of which would be terminated by the Market Hall and the other by the Public Library; both are buildings quite worthy of acting as focal points. This arrangement would necessitate an oblique line on the east side of the square, but in reality this would never be noticed.

Reference to the plan will show that the existing line of Princess-street is adhered to, thus allowing of an opening out of the new road on to open space of the churchyard. This fortunate circumstance will very materially improve the road, and leave an island which could be used for utilitarian purposes, cleverly masked by shrubs, and possibly a statue as in the Nelson-square.

There are three other improvements indicated by dotted lines to show that they are not essential to the rest of the scheme, though they are natural developments of it. All are more closely associated with the traffic problem of the town than with its development.

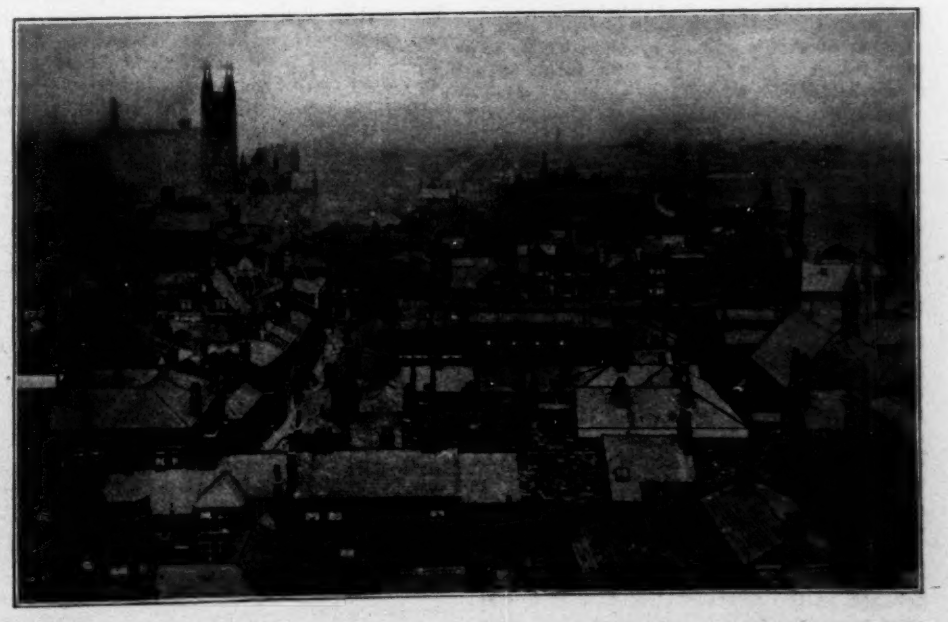
The first and most important of these minor improvements is a street which forms a direct continuation of Chorley Old-road to the junction of Deansgate with Oxford-street, with a branch road to open up a view of the Market Hall. The second is a road which would practically follow the line of the brook from the bottom of Churchbank, crossing Bank-street, Crown-street, to Bridge-street, opposite the centre of Market Hall.

The third further improvement is a continuation of the existing road which starts near the west gate, in a straight line to the Spa-road. The Bowling Green, which it crosses, could easily be transferred to a suitable position. This improvement would secure a much better connexion with Gilnow-road and the Cemetery. Its adoption is not, however, in any way essential to the main scheme."

The illustrations we have selected from the report will give a fair idea of the character of the areas through which the suggested streets would pass and the general effect of the improvement as proposed.

The chief value of such a proposition at the present time is less in the actual merits of a particular scheme, though in this case this may claim to be regarded as a well-considered one, than in the possibilities it opens up with regard to the way in which our civic requirements may be dealt with in the future.

Our cities have benefited in the past by numerous acts of munificence at the hands of leading citizens, but these benefactions have usually taken the form of a specific founda-



Bolton: View from Town Hall along route of new road to Church.

tion or building treated in a detached way, irrespective of the amenity of the city as a whole. It has been left to Mr. Lever to supplement his offer with a scheme showing how it could best be conjoined with a great municipal improvement, and if this far-sighted example is widely followed it will be of the very greatest value in advancing the dignity and attractiveness of our cities. It is, of course, difficult for our elected bodies, as trustees of the public funds, to embark on the preparation of plans without exposing themselves to the criticism of the more parsimonious, particularly if these plans show comprehensive proposals, even though wisely prepared for future possibilities. But if a scheme is offered in the broad-minded spirit of this one for Bolton the authorities incur no criticism, and are, on the contrary, likely to obtain a large measure of support in adopting the proposals, by such instalments as may be financially practicable. This, at all events, seems to be the feeling in Bolton, where Mr. Mawson's lecture on the suggested improvements was most enthusiastically received, and where it appears likely that the plan will form the basis for making the central portions of the city more worthy of this important centre of population, and more suited in character to the important work now transacted amid relatively unimpressive surroundings.

THE SUBURBAN FRONT GARDEN.

THOSE lovers of the picturesque who put their trust in age to accomplish loveliness, must surely be disillusioned if ever they travel a suburban road. The suburbs are old enough to have had colours and forms softened into architecture if Time could do it. Yet Time's sickle has blunted none of their arrises, Time's breath has blown no gold dust of lichen into their clefts. Sporadic attempts have been made to cultivate the little patches of soil before the houses, but rare is the garden where such energy has been repaid with bloom of flowers sufficient to warrant a pause by the passer-by; so often the lank grass waves over a submerged path and flower-bed, or wizened bushes droop in unrelated existence to one another and to the building they are supposed to naturalise. The very principle of these relics of landscape gardening is in itself wrong. Their origin lies in the good intention of pervading the street with sunlight and air by setting back the building line. But their materialisation was effected by the curious desire to have a house standing as far as possible reserved and private in its own grounds. For this reason the thoroughfares and *cul-de-sacs* of the suburbs were named "roads" rather than "streets." So long as this idea of the suburb dweller continues so will the ugliness of his surroundings, but once the snobbery of it is renounced a number of things will be possible which are now taboo. For instance, the front of a street house will symbolise, however incompletely, that side of the occupier's life which is concerned with his public energies and reputation. It will be balanced in design and sincere in construction. It is impossible to paint beauty and truth on to features which are already existing in stone and brick, but it is worth while considering how the garden in front of them may be remodelled.

The course most consistent with expression of civic dignity will be to sweep away the garden altogether. This will recommend itself especially where the projections of bay-windows, and the insets of verandahs, do not exist. The removal of fences and the subsequent paving of the site will be undertaken by the public authority, and the expense will be borne jointly by landlord and tenant, since the former has no longer to maintain his property nor the latter his garden. The original boundary line will be marked in the pavement, so that if it were ever necessary to turn the houses into shops these can be built out to the furthest extent of the property. A row of trees can be planted on each kerb, where they will exclude more dust and less sunshine from the houses than in their former position in the front garden. Plane-trees would be more likely to flourish than any other, and the fantastic shadows of their leaves will pattern the pavement, or their multitude of black bells wag in the winter's wind. The individual house will have its aspect of subsidence into the earth transformed to an appearance of rising from the solid ground, it will be brought into relation with its neighbours, and will have achieved a foundation common to the whole street.

In regard to new streets built on this plan, if a well-defined base of brick, granite, or stone be formed to all houses alike, it will be found that the upper ranges of windows and the roof of individual houses will thereby bear more variation, and yet remain consistent with civic effect. One of the worst faults of existing suburbs is that the skyline is drilled up to a dead level, whilst individualism runs unchecked in the gardens about the base. The project of building in uninterrupted ascent from the pavement is a time-honoured custom in the Old English towns, and no stigma of eccentricity is therefore attached to the idea. Neither are complaints ever heard of unbearable publicity, nor of any Curious Impertinent pressing nose to window-pane, as he is at liberty to do in every ancient thoroughfare. We see this method in general use in the stone-paved courts of the Temple, Strand.

The alternative idea of converting the front garden into a paved court is perhaps a solution which will find more favour. It involves no corporate action and makes no claim on the municipal purse. The result undoubtedly will be less distinctive in its main effect through being of a sporadic nature. Yet if once an example be set in a beautiful manner it may soon be followed, and unity secured. Anything in the nature of fence or hedge more than 3 ft. 6 in. high, and probably the cast railing, will have to be removed. The dwarf wall may be left either as it is or surmounted with open wrought-iron work. But the best choice will be to remove the whole fence, and plant low posts, connected by chains, on the boundary. The materials for laying the court must be hard enough to resist footwear, and nothing of such dead colour as asphalt, patent stone, or cement must be employed. But colour decoration, the rational means of beautifying flat surfaces, may be effected by bricks, stone, flint, and granite. A broad treatment would be secured in such a forecourt by the use of black slate and grey-green stone, which, in the instance one calls to mind, has not prevented the growth of an immense magnolia over the house behind.

But if a more than tangible advantage, if a further virtue, result to the dweller in the suburb from the realisation of these plans, it will be through their acting as a wedge to open his understanding of space and form and colour. To those who will regret the destruction of Nature, wizened though it be, that now exists in the front gardens an answer may be indicated in John Ruskin's words: "Abstract colour is not an imitation of nature, but is nature itself; that is to say, the pleasure taken in blue or red, as such, considered as hues merely, is the same, so long as the brilliancy of the hue is equal, whether it be produced by the chemistry of man or the chemistry of flowers or the chemistry of skies."

THE NEW YORK MUNICIPAL EXHIBITION.

IN October last an exhibition of particularly interesting character was held by the New York City Authorities, the object being to show by charts and other exhibits what was being done with the money provided by the ratepayers.

The Exhibition, which has now become an annual fixture, originated in the endeavour made in 1908 by the Bureau of Municipal Research to give, by means of charts and diagrams, some useful information connected with the preparation of the yearly municipal budget. In consequence of the public interest aroused by the simple exhibits in 1908 and 1909, the City Authorities arranged last year for an exhibition on an extended scale, including apparatus, equipment, and material, to illustrate work in all departments of the administration.

Among the charts exhibited last year the following may be cited for the purpose of indicating the convenient manner in which information was conveyed:—(1) Graphic representation showing the total amount of corporate stock issued between 1898 and 1910, and the large proportion devoted to engineering works; (2) chart showing the sources of municipal income and the channels through which it is expended; (3) charts denoting the organisation of various administrative departments: (4) diagrams representing progress in paving, sewer construction, water supply, the construction of baths and markets, traffic facilities, the decrease in fatal street-car accidents by the adoption of safety devices, and various other evidences of activity.

Some of the charts were specially noteworthy for the comparison they furnished between the cost of work in New York and in other cities, where, we understand, kindred exhibits are now under consideration.

To indicate the practical value of the exhibition to inquiring minds, we may point out that the Fire Department showed a large number of objects comprising supplies as well as fire equipment, to each of these being attached a label stating the price paid, with further explanation in the case of patented articles. The same department exhibited supplies manufactured in the repair shops, now reorganised on a basis which has resulted in considerable annual saving and increased output. Among the lessons to be learned from the historical exhibit of fire-fighting appliances was that one motor hose-wagon could be maintained at a cost not exceeding that of shoeing one of the three horses required to draw a similar vehicle, to say nothing of the greater efficiency secured. It was shown also that in areas protected by high-pressure fire services, fire engines had been eliminated, with consequent economy and reduction of insurance rates. Models were exhibited of the standard designs for reinforced concrete fire stations now being adopted, instead of getting out plans specially for every building required.

The exhibits of the Water Board included models of the dams and aqueducts forming part of the Catskill project, which involves an outlay of more than thirty millions, and, as an engineering work, closely approaches the Panama Canal in magnitude.

The Department of Water Supply, Gas, and Electricity made an equally instructive display, and the same may be said of the Bridge Department, and the several departments responsible for buildings, schools, hospitals, asylums, parks, and other institutions. Further details relative to this admirably-conceived Exhibition will be found in an article by Mr. Herbert T. Wade in the *Engineering Magazine*, from which the information in the foregoing notes has been taken.

The example set by New York is one clearly deserving imitation in London and our large cities, where an enormous amount of work is carried out which deserves far more prominent notice than that given in the somewhat dreary reports now constituting the only official record of municipal activity in which the public are directly concerned, both as paymasters and beneficiaries.

CIVIC DESIGN NOTES.

Ugliness of the Typical Mining Village.

THE Archbishop of York, speaking on the subject of a town-planning scheme in the district of Doncaster, referred to the ugliness of the typical mining village, and reminded his audience, says the *Yorkshire Observer*, of the inspiring but almost overwhelming responsibility which, during the next five years, would devolve upon them. He supposed it was no exaggeration to say that within a few years some nineteen new pits would be started in that immediate area, representing a population of miners and their families of at the very least 150,000 people. The question before them was, What should

be the character of this new city of industry? It was still an open question, and it depended upon them how it would be answered. But the question could not remain open much longer. At present they were at the cross roads between the old way of blind chance, which meant a repetition of the mistakes of the past, and the way of wise foresight. He need hardly remind them of familiar features of the ordinary colliery town or village. "You know their familiar features—long rows of houses of monotonous ugliness. Are they necessary? Does it follow that decent working people can only be housed in these long rows of dismal and dreary ugliness? There is no necessity. It has merely been allowed to be so." They knew the conditions of overcrowding and insanitation which had been allowed to grow up, and there was not a man present who did not know that it was useless to embark on crusades against tuberculosis if they were going to resist the opportunities that presented themselves of seeing that the seed plots of tuberculosis—overcrowded houses—were removed. "Consider," he said, "the effect on the character of the people. Ask a man to work all day in the depths of the earth and ask him as recreation to sit at his front door and contemplate the barren monotony of ugliness before him, or walk about a piece of dreary, derelict land, and can you blame him if he goes for excitement to the public house or to the drinking club? . . . We are all to blame for what happened in the XIXth century, and we are much better occupied this afternoon in asking, How can we avoid in our generation the mistakes our fathers made in theirs? than in placing blame on them." Moreover, continued the Archbishop, they were not in the position of their fathers, but had all the experience of medical and sanitary science at their disposal and experiments in great housing schemes for their instruction. Again, they were given powers by the Housing and Town Planning Act which their fathers did not possess. The local authorities in co-operation with the landowners of the district could lay their hands upon the area that was to be a great industrial city and control from the first the character of that city. Either one authority or the combination of authorities acting through a joint committee could apply for powers to make a town-planning scheme for the district five or ten miles around Doncaster, and they could settle that, whatever development took place in that area, it should be upon lines that would secure for the population immunity from those evils which they deplored in many existing communities.

Alternative Scheme for Holyrood.

One of the most interesting designs in the Edinburgh Town Planning Exhibition is the drawing showing a scheme for rebuilding the Abbey Gateway, Holyrood, as a Memorial to King Edward VII. It is the work of Mr. Ramsay Traquair, A.R.I.B.A., Mr. F. C. Mears, and Mr. J. S. Ferrier, A.R.I.B.A. The cottages at the Abbey Strand, being of such historic interest, are allowed to remain, and no attempt is made to create any large open space of roadway. It is proposed to clear out some of the houses at the back of the Abbey Strand, where these have become congested, to remove the modern upper story from the old house at Thomson's Court in the Abbey Strand, and to restore the gabled front which was originally there, and to repair and refit the houses, which could then be used as additional accommodation for gardeners or others connected with the Palace. The Horse Wynd would be widened by setting back the church and Royal stables, and the present very plain modern tenement at the corner of the Horse Wynd remodelled or rebuilt.

Sheffield Station Viaduct.

Mr. E. M. Gibbs, F.R.I.B.A., has submitted to the Markets and Improvement Committee of the Sheffield City Council a scheme to overcome the difficulties with regard to the proposed new street to the Great Central Station. In Mr. Gibbs's plan the street to the station runs from the Haymarket to Blonk-street, nearly in a direct line for the station, but instead of descending 26 ft. to Blonk-street and then ascending 20 ft. to the station-yard it is carried on a viaduct on the level of Haymarket, over the land purchased by the Corporation, then by a bridge over Blonk-street (26 ft. high), and forward by a viaduct over the side of Smithfield Market to the station-yard. The advantages are that access is obtained to the station nearly on the level; serious delay and damage are avoided for trams, vehicles, and foot passengers by cross-traffic in Blonk-street; surplus lands are provided for large extensions of the markets (the viaduct being over the land, and not cutting it into two pieces); 2½ acres of land are utilised twice over, by access from the viaduct at a high level, as well as access from the streets at a low level. The cost is favourable, and the proposed scheme recommends itself.

Town Planning in Sheffield.

Other proposals have been put forward by Mr. Gibbs for the architectural and social improvement of Sheffield. The chief feature is the "ring" road to encircle the city and to link up the suburbs with each other. Sheffield and its environs being hilly, a geometrical plan is not desirable, and Mr. Gibbs arranges for a picturesque treatment of the site. Parks would be conspicuous, and future developments would be governed by good principles.

Edlington, Doncaster.

The rapid strides which have been made in the neighbourhood of Doncaster towards the working of the coalfields on a large scale have suggested the possibility of providing the miners with homes built and placed in a manner which shall conduce not only to health and comfort, but to personal and mutual enjoyment. The planning of the village of Edlington offered a splendid opportunity to put into practice the principles which have been so much before architects and the public of late years; and it seems likely that the colliery will possess a model village. Messrs. Richards & Kaye, of Pontypridd and Doncaster, are the architects.

Underground Moving Platform: New York.

A project under consideration by the Public Service Commission of New York contemplates the installation of a moving platform, akin to that in the Paris Exhibition of 1900, under 34th-street. The platform itself would move at the rate of 12 miles an hour, and be bordered by three access platforms running at the speeds of 3, 6, and 9 miles an hour. As it is proposed to provide seats on the main platform, passengers will have all the advantages of an underground electrical railway, with the additional convenience of being able to step on and off the endless and ever-running train at any point. Between the moving platform and the wall of the subway there will be a continuous gangway, with numerous ticket offices and entrance-gates. In order to minimise vibration and noise, it is proposed that the wheels beneath all the platforms shall be fitted with india-rubber tyres.

Figures published by the Public Service Commission show that stopping trains of five cars carry 22,500 passengers per hour, and express trains of eight cars 36,000 passengers per hour, while it is estimated that 73,500 passengers per hour could be transported by the moving platform.

Artistic Street Lighting in Cincinnati.

An experimental installation of electric lamps in holophane shades has recently been made in Race-street, Cincinnati, and, according to a correspondent of *Municipal Engineering*, it is as great an advance over the ball globe as the latter was over unshaded arc lamps. The accompanying

illustration shows the tapering standard carrying four suspended lamps, and surmounted by one melon-shaped globe. It is stated that the lamps are practically invisible, and that the opal shades give a soft white glow, without shadows in any part of the street, and of intensity sufficient to render newspaper print plainly visible between the lights.

Garden Cities.

The diagram reproduced on this page shows the extent to which the Garden City and Garden Suburb movement has grown in the few years it has been in existence. It shows clearly, too, the nature of each settlement; and, as there is considerable confusion on this point, it will be useful for reference. As will be seen, Letchworth, the first Garden City, takes the lead in acreage.

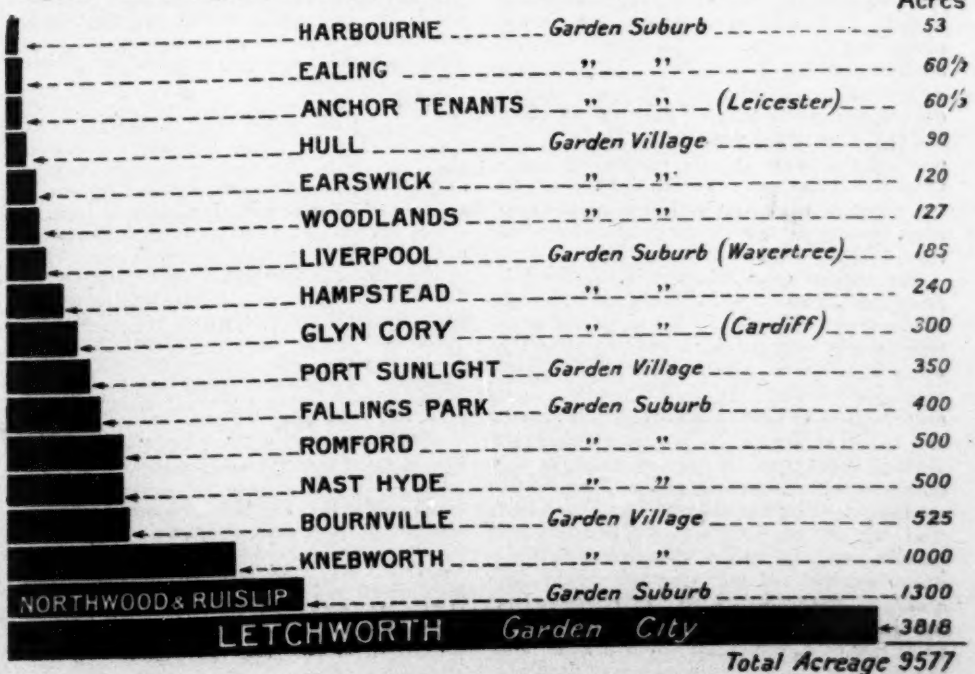

Acres
HARBOURNE Garden Suburb 53
EALING " " 60½
ANCHOR TENANTS " " (Leicester) 60½
HULL Garden Village 90
EARSWICK " " 120
WOODLANDS " " 127
LIVERPOOL Garden Suburb (Wavertree) 185
HAMPSTEAD " " 240
GLYN CORY " " (Cardiff) 300
PORT SUNLIGHT Garden Village 350
FALLINGS PARK Garden Suburb 400
ROMFORD " " 500
NAST HYDE " " 500
BOURNVILLE Garden Village 525
KNEBWORTH " " 1000
NORTHWOOD & RUISLIP Garden Suburb 1300
LETCHWORTH Garden City 3818
Total Acreage 9577

Diagram to Scale showing area and relative size of the principal Garden City, Garden Village and Garden Suburb Schemes in England.

THE BUILDING TRADE.

WORKMEN'S COMPENSATION CASES.

THE practical man in the hair-splitting decisions under the Workmen's Compensation Act must despair of ever being able to ascertain the extent of his liability or to claim indemnity from his insurers without recourse to litigation. Two new cases have come before the Court of Appeal, and have divided that Court in opinion, both of which are of importance.

In Ball *v.* William Hunt & Sons, Ltd., a man engaged as an edge tool moulder, some sixteen years previous to the present application, had met with an accident which had deprived him of the sight of his left eye, but the blind eye remained, to all appearance, normal, and he had continued in his old employment at the old rate of wages. In September last, whilst the man was at work, a piece of brick struck his blind eye, setting up so much inflammation that the eye had to be removed. Compensation was paid him until he had recovered from the operation, but the ground of his application was that as a one-eyed man he could no longer obtain employment, either from his old employers or other firms. The majority of the Court held that this disfigurement in such an occupation as that in which this man was engaged did not create an incapacity for work, for which the man was entitled to compensation; his earning capacity remained the same, although the accident had made his defect more obvious; appearance was not an essential in his occupation. Lord Justice Fletcher Moulton, however, delivered a long dissentient judgment to the effect that the workman is entitled to compensation, even if his physical capacity for work remains the same after the accident, if he can prove that his earning capacity is diminished, and the result of such a doctrine would appear to be that the workman's inability to procure employment would be in many cases substituted as a test for his inability to perform work. Since the introduction of Workmen's Compensation the employers are naturally averse to employing men with any defect, as it manifestly increases their liability to pay compensation; especially is this the case with one-eyed men, as an injury to the remaining eye must render them incapacitated for life, and such men are very difficult to insure. In this latter connexion the dictum of the Lord Justice that there is no duty on a workman to disclose to his employer a defect in eyesight seems especially to be deprecated, as it might have the effect of leaving the employer uninsured. If the opinion expressed in this dissentient judgment were to prevail it is clear that, whatever the physical condition of the injured workman, employers would be made liable until the man actually obtained employment.

The second case, Riley *v.* W. Holland & Sons, Ltd., also caused a division of opinion in the Court of Appeal. A woman had been temporarily engaged in a mill to take the place of someone who was ill; this engagement terminated on a Wednesday, but, according to the custom in the mill, the woman had to call at the mill for payment on Friday. Having been paid, whilst descending the stairs of the mill she slipped and sustained an injury. The majority of the Court held that the contractual relations between the parties continued as the woman was under a duty to go to the mill to receive payment, and that she was entitled to compensation, but Lord Justice Buckley held that where, as in this case, the employment is at an end the mere owing of a sum as wages does not continue the contract of employment. All that can be said, in view of the decision of the majority of the Court, is that employers will be wise, as far as lies in their power, to pay their workmen's wages on the day their services are dispensed with.

THE MANUFACTURE OF PORTLAND CEMENT.

AT a meeting of the Royal Society of Arts on the 22nd ult., Mr. A. C. Davis, F.C.S., A.M.Inst.C.E., read a paper on "The Manufacture of Portland Cement." In the course of his remarks he said:—

"Although I propose in this paper to confine my subject particularly to the methods of manufacture as adopted in the industry in this country, yet the progress that has been made in recent years by manufacturers of Portland cement on the Continent and in the United States of America and Canada will call for comment where such progress differs materially from our own methods.

Portland cement was originally invented in England some three-quarters of a century ago, and the British makers adhered solidly to old-fashioned methods for some decades. These at last had their day. But whilst we were dormant, our foreign rivals not only copied the manufacture of this invaluable product from us, but actually improved upon it to such an extent that their industrial conditions, as far as cement making is concerned, have been a revelation to us. For some years, however, the British cement maker has been actively engaged in building modern works and putting down up-to-date plant in his obsolete factories, with the result that for quality of product, combined with low cost of production, the British manufacturer has nothing to fear from oversea competitors.

In the year 1824 we have the practical commencement of the manufacture of what we know to-day as "Portland" cement, when the English mason, Joseph Aspdin, of Leeds, found that by mixing in certain well-defined proportions finely-pulverised chalk with the clayey mud of the River Medway, and burning the same at high temperature, he was able to produce a hydraulic binding far exceeding in quality any product known up to that time.

What is Portland Cement?

Now what is Portland cement? The term "Portland" is limited to a hydraulic cement containing a large percentage of lime, and at once distinguishes the valuable constructive material bearing that title from other cementitious substances. The British standard specification defines Portland cement in the following terms: "The cement shall be prepared by intimately mixing together calcareous and argillaceous materials, burning them at a clinkering temperature, and grinding the resulting clinkers."

Portland cement is a chemical product obtained by the preliminary mechanical combination of carbonate of lime and silica and alumina, which, after passing through the succeeding stages of manufacture, becomes a mixture of silicates and aluminates of lime.

The centres of the manufacture of Portland cement are well distributed over the country.

The raw materials used for the manufacture are therefore carbonate of lime, usually in the form of chalk or limestone, and silica and alumina, usually in the combined form of shale or clay. The two materials for the necessary combination indispensable for the manufacture of cement are not always found upon the same site.

If it were at all possible to find a geological formation of uniform composition containing exactly the right amount of naturally-mixed chalk and clay Portland cement could be made from it by the cheap and simple method of merely burning lumps of the material as quarried. But since such a material has not been discovered in quantity in this country, this method of manufacture is hardly practicable, for a variation of even 1 per cent. of the proportion of carbonate of lime in the raw materials, to say nothing of the irregular composition of the other ingredients, is sufficient to destroy the reliable quality of the resultant cement.

In manufacturing Portland cement, however, carbonate of lime and clay are first efficiently and accurately amalgamated in certain fixed proportions, either by the addition of water to the raw materials, or by the fine grinding and mixing of the same in their dry state. The composition of a prepared mixture of these raw materials should be, roughly, three parts of chalk to one of clay.

In the Thames and Medway districts the chalk formation on the banks of these rivers is quarried, and this material is mixed with the deposits of mud found in the estuaries and creeks. These chalk deposits have a depth of 100 ft. to 300 ft., and the excavation is done by manual labour. The greater part of the clay used by the Thames and Medway manufacturers is this alluvial mud I have referred to, which is a salt-water deposit. These two raw materials are mixed together in correct proportions by what is called the wet process of manufacture, to which I will refer later.

The chalk marls around Cambridge have been well proved to be eminently suitable for the manufacture of a first-class quality cement. The "marl" is a deposit of calcareous and argillaceous material found at the base of the local chalk. It differs from the main mass of the chalk above in the quantity of the clay it contains, as might have been expected, seeing that the chalk deposit succeeded a deposit of fine gault clay, and it is probable that during the changing geological conditions the sea would not be at once cleared of mud.

It is a curious fact, and one worthy of note, that the chalk marl of Cambridgeshire—though the relative quantities of chalk may vary from yard to yard in depth when testing on the face of the quarry—contains in the aggregate about the same proportion of calcareous and clayey material as is obtained artificially by the mixture of chalk with alluvial mud in the Medway Valley.

In the cement-making districts of Rugby and Wales, we have the well-known Lias formation of limestone and shale, and this is successfully treated for the manufacture of Portland cement. The thin layers of these materials with their variation in composition must, similarly, be very accurately and efficiently dealt with. In working the Lias formation it is found that the preponderance of shale in proportion to limestone (which is generally found to contain 78 to 85 per cent. of carbonate of lime) renders the cost of working heavy, because of the removal of surplus clayey material not required in the manufacture.

On the Tyne, Wear, and Tees, and in the north of England generally, Portland cement is manufactured from chalk imported from the Thames, Medway, or Sussex districts, and this is mixed with a local clay found on the site of the works. From this mixture a good quality cement is manufactured.

In the United States most of the cement produced is from the Lehigh Valley argillaceous limsetone, a sample of which we have here, and which contains rather more clay than is required for a correct mixture. To this a small amount of pure limestone, usually 10 to 20 per cent., is added to bring the mixture up to the necessary percentage of calcium carbonate required in the manufacture.

In Germany the raw material consists of chalk marl, similar to our own.

Mixing.

Now I must refer to the mixing processes by which these raw materials are brought to the condition for chemical combination.

The preliminary mechanical blending of the raw materials for the manufacture of Portland cement is a stage requiring the utmost technical skill, for the thoroughness of the process primarily determines the quality of the resulting cement.

The primary conditions of any method of Portland cement manufacture are that the raw materials shall be (1) correctly proportioned, (2) very finely comminuted, and (3) thoroughly mixed. The proportions of chalk and clay must be kept to a standard as closely as ever possible, work which at the present

time, in the most successful cement works, is carried out under the supervision of the works' chemists. The proportioning of the ingredients is governed by continuous laboratory checking of the raw materials as they are quarried, and this testing goes on night and day, or as long as the manufacture is proceeding.

There are two principal methods of reducing and mixing the raw materials, namely: Firstly, the "wet process," applicable only to soft materials, the correct quantities of the raw ingredients being ground and mixed by the aid of a considerable amount of water; secondly, the "dry process," in which the perfectly dry materials are ground together to an impalpable powder or "flour," and subsequently mixed to correct chemical proportions.

The Wet Process.

The wet process of mixing the raw materials is particularly adapted to such materials as are easily disintegrated by the addition of water. This method of mixing, as originated and developed in this country, is employed to a considerable extent by the manufacturers of cement on the Thames and Medway. By this process the chalk, as quarried, and clay are weighed into what is called a "wash-mill," where a large amount of water is added. The wash-mill is simply a brick pit, some 15 ft. in diameter and 5 ft. deep, in which revolves a series of harrows for breaking up and mixing the two ingredients in their wet state. It is fitted with a circular framework revolving on a central pier, to which the harrows are suspended by chains, the machine being driven by a crown wheel, which drives the heavy harrows round the wash-mill, and through the material at the same time, thus agitating the mass and disintegrating and mixing the raw materials so as to bring the mixture to about the consistency of cream. In this condition it is termed "slip" or "slurry."

The thick liquid material from the wash-mill is then pumped to further grinding machinery in the shape of millstones or tube-mills, where the operation of amalgamation of the raw materials is completed.

The tube-mill as used for wet grinding consists of a drum (about 20 ft. long and 4 ft. 6 in. diameter) made of steel and protected against wear and tear by renewable cast-iron plates. The drum contains a large number of flint stones, and its interior is easy of access through two or more manholes.

The raw mixture, previously reduced by the wash-mill, flows through a simple straight pipe and through the hollow journal on to the front end near the gearing into the grinding drum, which slowly revolves. After being thoroughly ground by the flint stones, the material is discharged through the hollow journal at the opposite end into a trough, which conducts the mixed materials to the drying chambers.

The Dry Process.

In the dry process method of dealing with the raw materials for cement manufacture, the calcareous and argillaceous materials, of whatever substances they may be composed, have first to be dried after passing the preliminary crushing machinery. The dryers now usually employed, therefore, in the most modern plants, consist of revolving cylinders some 30 ft. to 50 ft. in length, and about 4 ft. in diameter. These rotary drying drums, as they are termed, are supported on steel tyres resting on heavy friction rolls, and the drums are rotated, when in use, at a speed approximating two revolutions per minute, and are usually set with an inclination of about ½ in. per foot.

The raw materials, after passing the crushing rolls, are introduced into the upper end of the dryers, and are immediately caught by cascading channels fitted inside the drums, which lift and drop the crushed raw materials as the drum revolves, and present them to the hot gases passing through the drums in the opposite direction to the way the materials are travelling, to the lower or outlet end. The use of the waste heat from the kilns is thus employed for drying purposes, or, again, furnaces are sometimes arranged to rotary dyers for the external heating of the drum.

The raw material, after being crushed and dried, must then be reduced to an extremely fine powder or "flour," and then carefully and thoroughly mixed to the proper chemical proportions before being conveyed to the kilns for burning. The plant usually employed for dry raw material grinding is often exactly the same as that used for grinding the finished cement, which I will describe later.

This dry process of manufacture is generally employed where the raw materials cannot be satisfactorily reduced by the addition of water. It is adopted in the Rugby and Wales districts, and in the Cambridge district also. In America and Canada the dry process is generally adopted, and similarly in Germany the dry process of manufacture is considered a less costly process than the wet method.

It will be seen, therefore, that in preparing the raw materials for the manufacture of cement, the chalk and clay must first be reduced to the utmost fineness.

Composition of Raw Material.

Now, before the prepared raw materials pass to the next stage in the manufacture—that of burning—the composition of the raw material mixture is ascertained by analyses and tests, and the carbonate of lime should be kept within, at most, ½ per cent. of the quantity found to produce the best cement. This percentage of lime varies in different works according to the many geological formations contributing to the manufacture, but, roughly, a combination of 75 per cent. of chalk and 25 per cent. of clay, will produce a cement of good quality. If any carelessness is permitted in the mixing process, the results are likely to be disappointing; for when the proportion of clay runs too high (or the percentage of lime carbonate falls below 75) a compound is obtained which, in the burning process, will fuse at a temperature lower than that required for the production of sound clinker, thus rendering it useless; and, on the other hand, an excess of chalk (above, say, 76 per cent.) will allow a mixture to sustain the highest temperature in the kiln without risk of fusion, but the resultant clinker would be of doubtful quality, because of its expansive tendencies when ground for cement.

The chemically-mixed raw material prepared in ordinary course of manufacture may therefore analyse in this way:—

Silica	16·5	Clay
Alumina and oxide of iron	6·5	
Undetermined	0·5	
Carbonate of lime	75·5	Chalk
Carbonate of magnesia	1·0	

From such a material, if properly treated in the further stages of manufacture, a good commercial cement, testing at least 600 lb. per square inch in seven days, should be produced.

Burning.

The next stage in the manufacture of Portland cement, following the scientific and mechanical preparation of the raw material, is that of burning at a high temperature, or calcining, the raw product at a point of slight vitrifaction, resulting in what is commonly called a cement "clinker."

In the raw materials it will be observed that the carbonate of lime, silica, and alumina, are in an uncombined state; in the conversion of the prepared raw materials into cement clinker by burning, the silica and alumina of the clay immediately enter into combination with the lime, thus forming calcium silicates and aluminates.

Just as the primary blending of the chalk and clay or faulty mixing can make or mar the quality of the cement, so can the burning of the material destroy all that is valuable in the finished product. If the temperature is too high in the kiln, the resultant material loses much of its value as a cement; and, on the other hand, if the heat be not sufficient, the necessary chemical changes do not take place, and a similar unsatisfactory result is obtained.

The proper degree of burning is indicated by the formation of a dense greenish-black clinker when coming from the kilns. Light-burned clinker is brownish and soft, while over-burned clinker is fused and slag-like.

The aggregate temperature in the process of calcination shows that, for normal Portland cement burning, a heat is required in the kiln amounting to 1,400° C., or 2,500° F. This temperature is variable, according to the percentage of carbonate of lime contained in the raw materials, the higher the proportion of lime the higher the temperature which is necessary to produce complete diffusion in combination with silica.

Kilns.

The kilns for burning the raw materials are always constructed for either "intermittent" or "continuous" process. The intermittent kilns are of such a design that the burning necessitates a distinct loading and drawing operation. Since these will soon be discarded, I will not devote any of your time to an explanation. But in the continuous kilns, the burning of the raw material proceeds without a break, and the drawing of the clinker takes place at the same time without interruption, thus making a continuous process.

Continuous kilns are generally costly to construct, and require skilled labour for their operation. These kilns are economical in fuel, and where they are used the calcining process is much more regular and the cement is of better quality.

In the category of continuous kilns we come to the process of burning by the rotary kiln, which has been lately brought into use. The manufacture of cement by the rotary kiln may be said to have revolutionised the industry, and this method of burning the raw materials is perhaps the most scientific and practical invention that has been introduced into the manufacture since Portland cement was first known.

More than 90 per cent. of the cement manufactured in the States is produced by the rotary kiln, and in England there are numerous works in which the kiln is solely adopted. While many other factories, not only in this country, but in many parts of the Continent, are now installing the rotary kiln for cement burning.

Although perhaps a new method of cement manufacture, enough has been seen of the product made from the rotary kiln, both in science and practice, to declare it to be the product of the future. The rotary kiln consists of a slightly-inclined steel or wrought-iron cylinder, usually from 100 ft. to 150 ft. in length, and 6 ft to 8 ft. in diameter, and is inclinel to the horizontal at about 1 in 30. The kiln is lined with radial fire-bricks, some 9 in. in thickness, and the long cylinder is mounted on tyres running on rollers and slowly rotated by gearing.

The cement-making materials are continuously fed into the kiln through a pipe at the upper end, in the form of either liquid mud or dry powder, according to the process adopted in preparing and mixing the raw materials. Finely-ground coal is almost always use as fuel, and this is introduced into the lower or outlet end of the kiln by a jet of air issuing from a blast fan.

When the kiln is started the fine coal is ignited, and after a time a white heat is obtained in the lower end of the cylinder. The raw material is then fed into the kiln, and as it gradually descends into the zone of heat generated by the perfect combustion of the finely-ground coal fed into the cylinder from the opposite end, it parts with any carbonic gas, forms little rounded balls, which reach nearly white heat in the lower third of the kiln, and finally issues at the lower end as well-burned clinker in grains about the size of a large pea. The greatest heat is naturally near the fuel-jet or outlet end of the kiln.

The operation of calcining is a continuous one, and with proper care under or over burning may be avoided. The hot clinker from the kiln is cooled either by being elevated to cooling towers or by rotary cooling drums. These generally consist of tubes some 40 ft. long and 4 ft. in diameter, containing cascading channels for lifting and dropping the hot clinker as the coolers rotate, thus presenting it to the cold air drawn through the clinker by the fan discharging coal to the kilns. The coolers rotate at a somewhat higher speed than the furnace tube, and by the air for the latter being drawn through the red-hot clinker a fair proportion of the otherwise lost heat is retained and utilised.

It is necessary to point out that all rotary kiln plants with ground-coal firing must include an apparatus for the drying of the coal to be used in the burning, and also a grinding plant to enable the coal to be finely pulverised before entering the kilns.

The percentage of fuel used in burning a ton of cement by the rotary kiln is from 25 to 35, although this percentage varies

considerably according to the quality of coal used and the fineness of grinding, and the facility with which the raw materials are burned.

A satisfactory coal for the rotary kiln is generally obtained from the various bituminous coals found in this country, but it is necessary to see that the percentage of ash in the coal does not exceed 10, and that the coal also has a value of some 7,000 calories per kilo, which is equal to 12,600 British thermal units per pound of coal.

Grinding.

We now come to the succeeding and final stage in the process, the grinding into an extremely fine powder of the clinker which comes from the kilns.

I propose now merely to deal with the machinery generally employed in the process of clinker reduction. It must be explained here, however, that in clinker-grinding not only is it necessary that a certain degree of fineness be attained to make a satisfactory quality of cement, but that also as large a proportion of "flour" as possible shall be contained in the finished product. By "flour" I mean that the cementitions property of the material is believed to reside principally in the extremely fine particles of cement, as apart from the "residue," which consists of practically inert material.

In modern works the preliminary grinding of cement clinker is carried out by the ball-mill, which consists of a cylindrical grinding drum, mounted on a steel shaft running through it, and provided with a tightly-closed sheet-iron casing. The grinding-drum is composed of overlapping steel grinding-plates, in one half of which holes are bored for the ground material to find its way through to the fine sieves externally surrounding the drum, and through which the somewhat coarsely-ground cement passes and is conveyed to the tube-mills for finer grinding. The crushing action of the ball-mill is caused by the revolving of the drum, which contains a number of steel balls of various sizes, between which the clinker is crushed and pulverised. For the finishing process—the fine grinding proper—the tube-mill is employed, which grinds by means of the round flint stones contained within it. The tube-mill consists of a wrought-iron revolving cylinder with hollowed pivots at both the feed and delivery bearings, and is about one-half full of rounded flint stones. The coarsely-ground cement is fed from the ball-mill into one end of the tube-mill, and the rotary action of this mill similarly to that of the ball-mill, finely pulverises the cement as it passes through the falling flint stones to the delivery end.

The finished cement is ground sufficiently fine to pass through a 76 by 76 mesh sieve with about 1 per cent. residue, and although finer grinding is rarely demanded, it can be readily accomplished by the manufacturer if necessary.

It is generally considered that the longer cement is kept in stock the more reliable it is to be found in use; but the modern product of to-day's manufacture requires neither storage nor aeration to provide and ensure the success of its quality.

It is desirable, however, that the material should be cooled down before loading into bags, and therefore the manufacturer generally arranges that he has sufficient quantity of material in stock to provide that engineers are supplied with a perfectly cool cement for their work."

LIMEWASHING, ETC., AND FACTORIES.

THE following Order of the Secretary of State, granting special exception—limewashing, etc.—has been issued:—

"In pursuance of sect. 1 (4) of the Factory and Workshop Act, 1901, I hereby grant to all factories and parts of factories which have been painted with at least two coats of a washable water paint as defined below, and are repainted with at least one coat of such paint once in every three years, a special exception that the provisions in subsect. (3) of the said section with respect to limewashing shall not apply thereto.

Provided—

(1) That the paint shall be washed at least once in every fourteen months;

(2) That the name of the paint used and the name and address of the makers of the paint, together with a certificate, in the form shown in the schedule hereto, from the makers of the paint, and the date of the original painting, and of each washing and repainting, shall be entered in or attached to the General Register;

(3) That nothing in this Order shall be taken to affect the obligation of keeping the factory in a cleanly state, as prescribed by subsect. (1) of the said section;

(4) That if it appear to an inspector that any part of a factory to which the exception applies is not in a cleanly state, he may, by written notice, require the occupier to limewash, wash, or paint the same, and in the event of the occupier failing to comply with such requisition within two months from the date of the notice, the special exception shall cease to apply to such part of a factory

In this Order a washable water paint means a washable paint which when finished for use contains—

(i) At least half its weight of solid pigment containing not less that twenty-five parts by weight of zinc sulphide as zinc white (lithopone) in each hundred parts by weight of solid pigment; and

(ii) At least ten parts by weight of oil and varnish to each hundred parts by weight of solid pigment."

THE BUILDERS' CLERKS' BENEVOLENT INSTITUTION:

ANNUAL DINNER.

THE thirty-third annual dinner in aid of the funds of the Builders' Clerks' Benevolent Institution was held on the 4th inst. at the Holborn Restaurant, Colonel G. H. Trollope, V.D. (in the unavoidable absence of Mr. Howard W. Trollope, President) being in the chair.

Among those present were Messrs. H. A. Bartlett, Dudley Bartlett, Lionel Dove, W. Downs, L. Horner, J. Randall, A. Ritchie, H. B. Sanders, G. G. N. Trollope, C. Watkins, W. F. Wallis, H. Wigglesworth, W. Woodward, and C. Woodward.

The loyal toasts having been honoured,

The Chairman

proposed the toast of "The Builders' Clerks' Benevolent Institution." He said it was exactly twenty-five years ago since he occupied the chair as President of the Institution. The Society was founded forty-five years ago, and its usefulness had been very great. It had risen from small beginnings to great things, and although the first year's grants were only 10*l*., last year they were 750*l*. At present sixty-seven persons were receiving pensions, and one widow had been on the pension list since 1879. The expenses were run on the smallest possible scale, but last year there was a deficit of upwards of 50*l*. Friends had been very kind on this occasion, and he hoped and believed a substantial amount had been subscribed. One thing which he remembered commenting upon twenty-five years ago, and which he saw from the report remained unchanged, was the fact that there were not so many builders' clerks subscribing to the Institution as there should be in view of the benefits they or their widows might receive.

Mr. Leonard Horner

proposed the toast of "Architects, Surveyors, and Quantity Surveyors." He said they were all connected with building, and knew how much they were indebted to those whose health he proposed. He was glad that architects were compelling a hearing in regard to St. Paul's Bridge, and hoped the result would be that it would be designed by an architect. He coupled with the toast the names of Mr. William Woodward and Mr. H. B. Sanders.

Mr. Woodward,

in reply, said that St. Paul's Bridge affected not only the Corporation which provides the funds, but affects the nation, and he hoped the Corporation would select an architect and engineer in collaboration to design the bridge, and so do justice to the artistic and scientific knowledge which we possess. He had said before that he considered there should be an open competition for the design and so allow young men of ability and knowledge an opportunity which they would not otherwise have. With regard to the memorial to King Edward, he would say that although the sculptor and architect selected were men qualified by judgment and skill for their work, let St. James's Park be as it is.

Mr. H. B. Sanders,

who also replied, said there was one phase of contracting to which he wished to refer, and that was the great number of specialists and subcontractors who were now to be found on a building—a practice which had come about during the last twenty-five or thirty years. There were often thirty of these specialists on a large building, and in one case which came under his notice recently there were fifty. He was not concerned personally as to whether it was good or bad; there was a tendency in these days to specialise, and the building trade could not be an exception. He was of opinion, however, that the R.I.B.A. contract should be brought up to date. They must improve, eradicate, and add to it, so as to bring it into line with modern thought. Inasmuch as architects place the onus of responsibility on contractors, they ought to see that contractors have fair play, and there should be a form of contract which subcontractors and specialists should be compelled to enter into with the head contractor. He suggested a round-table conference of those concerned to arrange the matter.

Mr. F. S. Oldham

proposed the toast of "The Builders and Builders' Merchants," and said the Institution had lost recently three supporters—Mr. Colin Patrick, Sir John Aird, and Mr. Howard Colls. He was glad to say Mr. Archie Colls had taken his father's place as trustee, making four members of the firm who were giving them their support.

Mr. A. Ritchie,

in acknowledging the toast, said it was very important that builders' clerks should contribute to a society which helps them.

Mr. John Austin, Secretary,

read a list of donations amounting to 384*l*., including twenty-five guineas from the President, and

Mr. William Downs

proposed "The Chairman," which was very cordially received.

GENERAL BUILDING NEWS.

CHURCH-HOUSE, MANCHESTER.

This building, which is being built from designs prepared by Mr. John Brooke, F.R.I.B.A., at a cost of 48,000*l*., is to be called the Houldsworth Hall. The contractors are Messrs. Norman & Sons, and the organ is being built by Messrs. Hill & Sons, of London.

NEW WESLEY HALL, MIDDLESBROUGH.

The new Wesley hall, classrooms, etc., now being erected in Corporation-road, Middlesbrough, adjoining Wesley Chapel, are the second portion of a scheme entered upon. The cost of this portion of the work is about 5,300*l*. The contractors are Messrs. Stephen Coates, Ltd., and the architects are Messrs. Kitching & Lee, of Middlesbrough and Darlington.

PREMISES, TON PENTRE.

The new central premises of the Ton Pentre Co-operative Society, erected at a cost of 6,000*l*., were opened on March 30. The new building was erected by Messrs. E. R. Evans & Brothers, Cardiff, according to the designs of Mr. W. D. Morgan, Pentre.

CHATHAM EMPIRE THEATRE OF VARIETIES.

The alterations, additions, etc., to this building are being carried out from plans prepared by Messrs. Frank Matcham & Co. The new building will accommodate about 2,500 people.

TRADE NEWS.

Boyle's latest patent "air-pump" ventilators have been applied to the Masonic Hall, Merthyr.

Messrs. O'Brien, Thomas, & Co., Upper Thames-street, E.C., have recently supplied for the Homœopathic Hospital a quantity of their D. O. Boyd's patent flue plates. These are extensively used for making ventilating shafts side by side with the smoke flues.

No. 5, Coney-street, York, hitherto advertised in the *Builder* as the northern offices of the Perfector Buildings and Constructions, Ltd., is now no longer their offices. These offices are now those of Mr. W. Harvey Brown, architect and consulting structural engineer, specialising in factory and school construction. Inquiries and correspondence intended for the Perfector Company should be addressed to the registered offices at 36-38, Victoria-street, Westminster, to the engineering and construction offices, or 1, St. Augustine's-parade, Bristol, or sent to their local agents.

The Ashton-under-Lyne, Stalybridge, and Dunkinfield Joint Water Board have decided to instal thirty-three mechanical filters for purifying their water supply, and the order has been placed with Messrs. Mather & Platt, Ltd., of Manchester.—Messrs. Mather & Platt, Ltd., have despatched to India Mr. Coubrough as a representative of their firm in connexion with electrical equipments. He will discuss with various firms in India, especially in Bombay and Calcutta, the possibility of electrifying their plant or of installing electrical power, and, perhaps, putting down plant to generate their own electric power and light.

The Hospital for Incurables, Newcastle-on-Tyne, is being supplied with Shorland's double-fronted patent Manchester stoves, with descending smoke flues, by Messrs. E. H. Shorland & Brother, Ltd., of Failsworth, Manchester.

The Coatostone Decoration Company, of 77, Mortimer-street, Regent-street, W., have been awarded the Grand Prix and Gold Medal for "Coatostone" liquid stone decoration at this year's International Exhibition, Paris, held in March, 1911.

TECHNICAL PRINTING PAPERS.

Technical printing papers have hitherto been largely obtained from the Continent, particularly from Germany, and much, if not all, of the emulsion on them, we are informed, has had but a short life. After years of practical experience of similar manufactures on the Continent, the directors of the Technical Paper Company have decided to start works at No. 26, Red Lion-square, for the purpose of producing these papers. The machinery which has been constructed at the works has an output capacity of 10,000 yds. per day of eight hours, and will be the largest of any similar machinery in the world. Improvements have been made as regards the emulsion to be used. The papers in themselves are of a tough and parchment-like character, with the object that after the copies of drawings are made, and when they ultimately reach the builders' or engineers' hands, they will be found extremely durable. Combined with this heavily-milled paper, the company have a new-process emulsion that gives the greatest contrast between the background and the lines. They guarantee that the paper will keep for twelve months before printing, and afterwards the copies are absolutely permanent.

MIDDLESEX COUNTY COUNCIL.

At the meeting on March 30 the tender of Mr. Albert Monk, of Lower Edmonton, at 6,040*l.*, was provisionally accepted for the erection of the proposed Technical Institute at Edmonton. Subject to the consents of the Board of Education and the Local Government Board being obtained, a secondary school and technical institute is to be erected on Ealing Green at an estimated cost, for buildings, of 16,000*l.*, and for furniture and fittings, 1,500*l.* The Education Committee is to be authorised to obtain tenders. A site has been purchased on Winchmore Hill for the erection of a public elementary school.

APPLICATIONS UNDER LONDON BUILDING ACTS, 1894 to 1909.

At Tuesday's meeting of the London County Council the following applications under the London Building Acts were dealt with (the names of the applicants are given between parentheses):—

Lines of Frontage and Projections.

Fulham.—Shop front at No. 225, Munster-road, Fulham, to abut upon the northern side of Orbain-road (Mr. M. A. Scott for Mrs. Scott).—Refused.

Kennington.—Two projecting balconies in front of Nos. 22 and 24, Lower Kennington-lane, Kennington (Messrs. Greenaway & Newberry).—Consent.

St. George, Hanover-square. — Projecting clock in front of No. 83, Piccadilly (Major C. Berthon for the Imperial Ottoman Tobacco Regie).—Consent.

St. George, Hanover-square.—Building upon a site at the rear of No. 36, Belgrave-square, and abutting upon Upper Belgrave-street (Mr. F. W. Foster).—Consent.

Wandsworth.—Buildings to abut upon Upper Tooting-road, Beechcroft-road, Mandrake-road, Fircroft-road, and Glenburnie-road, Wandsworth (Mr. H. Watts).—Consent.

Width of Way and Lines of Frontage.

Strand.—Aviary at the first-floor level of No. 6, St. Alban's-place, Haymarket (Mrs. I. M. Jackson).—Consent.

St. George, Hanover-square. — Addition to the Victoria Palace, on the eastern side of Allington-street, Victoria-street (Messrs. F. Matcham & Co.).—Refused.

Strand.†—Wood and glass screen in front of the Hotel Dieudonne, Nos. 13 and 15, Ryder-street, St. James (Messrs. W. Woodward & Sons).—Refused.

Westminster.—Re-erection of the Middlesex Guildhall on the western side of Little George-street, Westminster (Mr. W. G. Austin for the Middlesex County Council).—Refused.

Lines of Frontage and Construction.

Hampstead.—Iron and glass shelter in front of the Hampstead tube railway-station, High-street and Heath-street, Hampstead (Mr. W. E. Mandelick for the London Electric Railway Company).—Refused.

Kensington, North.—Iron and glass covered way in front of No. 15, Dawson-place, Notting Hill-gate (Messrs. R. H. & J. Pearson, Ltd., for Mrs. Oliver).—Consent.

Marylebone, East.—Iron and glass shelter over the entrance to Pagani's Restaurant, Little Portland-street, St. Marylebone (Mr. F. T. Verity for Messrs. Meschini).—Refused.

Strand.—Iron staircase at the Shaftesbury Theatre to abut upon the north-eastern side of Gerrard-place (late Nassau-street), Strand (Messrs. A. D. Dawnay & Sons, Ltd.).—Consent.

Strand.—Iron and glass shelter over the entrance of the Strand tube railway-station, Strand (Mr. W. E. Mandelick for the London Electric Railway Company).—Consent.

Strand.—Iron and glass shelter at the entrance to the Covent-garden tube railway station, Long-acre, Strand (Mr. W. E. Mandelick for the London Electric Railway Company).—Consent.

Width of Way, Line of Fronts, and Construction.

Hampstead.—Greenhouses on the northern side of College Villas-road, Hampstead (Mr. F. Debenham).—Consent.

Width of Way, Separation, and Alteration of Buildings.

Kensington, South.—Alterations at No. 74, Courtfield-gardens, Kensington (Sir Arthur Blomfield & Sons).—Consent.

Westminster.—Staircase between the ground and first floors of Nos. 187 to 193, Knightsbridge (Mr. A. Burr for Mr. J. C. Humphreys).—Consent.

Formation of Street and Space at Rear.

Chelsea.—Buildings upon a site abutting upon King's-road, Vale-avenue, and Mallord-street, Chelsea (Messrs. Elms & Jupp for the Vale Estate, Ltd.).—Consent.

Formation of Streets.

Fulham.—Formation or laying out of four new streets for carriage traffic on the Crabtree Farm estate, on the western side of Fulham Palace-road, northward of Crabtree-lane (Mr. W. C. Poole for Messrs. Allen & Norris).—Consent.

Holborn.—Formation or laying out of a new street for foot traffic only in connexion with the erection of buildings upon the site of Fulwoods-rents, Holborn (Mr. H. J. Leaning).—Refused.

Uniting of Buildings.

Kensington, South.—Uniting of Nos. 3 and 5, Church-street, Kensington (Messrs. Moore & Hunter for Messrs. Annett & Simpson).—Consent.

Marylebone, West.—Opening in a division wall at No. 370, Edgware-road, St. Marylebone, and the use of roller shutters in lieu of iron doors (Mr. J. Hudson).—Consent.

Paddington, South.—Uniting of Nos. 38 and 39, Leinster-gardens, Bayswater (Mr. A. Dawkins for Mr. W. May).—Consent.

The recommendation marked † is contrary to the views of the metropolitan borough council concerned.

PROJECTED NEW BUILDINGS IN THE PROVINCES.*

ABERCARN.—Three hundred houses; Borough Surveyor, Council Offices, Abercarn.

Aberdeen.—Passenger-station (250,000*l.*) for Great Northern (Scotland) Railway and Caledonian Railway; Mr. J. A. Parker, Great Northern (Scotland) Railway, 80, Guild-street, Aberdeen.

Alcester. — School (5,000*l.*); Mr. Crowe, builder, Dorridge Knowle.

Arbroath. — Alterations and additions to infirmary (8,000*l.*); Board of Directors.

Ashford.—Public hall, Tufton-street, for the Ashford Entertainments, Ltd.

Audenshaw. — School, Dale-street (600 places); Secretary, Ashton-under-Lyne County Education Committee.

Bacup.—Rebuilding Bridge End Mill, Water-st., for Mr. Richard Ashworth, woollen manufacturer.

Bangor.—Workhouse infirmary (1,500*l.*); Mr. Bellis, architect, Bangor, North Wales.

Barnoldswick. — Shed (6,000*l.*); Mr. P. Pickup, architect, Burnley; Messrs. Clegg Bros., builders, Burnley.

Barwell.—Extension to premises, King-street, for Messrs. Harvey & Harvey.

Batley.—Extensions to Staincliffe Low Mills for Messrs. Newsome, West, & Co., woollen manufacturers.

Beccles. — Additions to church day school; Mr. A. Pells, architect, London-road, Beccles.

Bennetts End.—Isolation hospital; Hemel Hempstead Joint Hospital Board.

Blackbarrow.—Church; Plymouth Brethren.

Bodmin.—West wing at St. Mary's Priory (1,000*l.*); Mr. E. Harris, builder, Bodmin.

Boscombe. — Post-office, Christchurch-road; Mr. J. H. Brewerton, architect, Richmond-chambers, Bournemouth.

Bournemouth. — Additions to Sanitary Hospital (8,000*l.*); Mr. F. W. Lacey, Borough Engineer, Bournemouth; Mr. A. J. Colborne, builder, Swindon.

Brandon.—School (250 places); Mr. F. R. Hughes, Secretary, Education Committee, West Suffolk County Council, Bury St. Edmunds.

Braunton. — Sixteen houses, Barton-lane; Mr. Robins, builder, Ilfracombe.

Bridport.—Labourers' cottages (4,000*l.*); Borough Surveyor, Bridport.

Broughton (Cheshire).—Proposed workmen's dwellings, Richmond House site (between 5,000*l.* and 8,100*l.*); Mr. W. M. Jones, Surveyor, Chester Town Council.

Burngreave. — Premises (1,800*l.*) for the Burngreave Unionist Club Company, Ltd.

Burstall.—Rebuilding portion of Carrs Mills for Messrs. Chas. Sheard & Sons, Union Dye Works, Batley.

Cambridge.—Rebuilding "Cow and Calf" premises, Albion-row, for the Star Brewery, Cambridge, Ltd., Newmarket-road, Cambridge.

Cardiff.—Fire-station, junction of Quay-street and Westgate-street; Mr. W. Harpur, Surveyor, Cardiff Town Council.

Castlebar.—Additions, Royal Hospital; Mr. Butler, architect, Castlebar.

Cattledown (Devon).—Completion of church (4,000*l.*); Sir Chas. Nicholson, architect, 2, New-square, W.C.

Cheadle.—School; Mr. G. Balfour, Secretary, Education Committee, Staffs County Council, Stafford.

Chester Moor.—School between Chester Moor and Waldridge Fell; Mr. J. A. L. Robson and Mr. A. J. Dawson, Joint Secretaries, Education Committee, Durham County Council, Durham.

Cirencester.—Twenty-four houses, Siddington-road; Mr. V. A. Lawson, architect, Castle-street, Cirencester.

Colchester.—Gut-scraping factory for Messrs. Wambach & Co.; Messrs. Goodey & Cressal, architects, High-street, Colchester.

Consett.—Hall and premises (4,000); Mr. J. E. Eltringham, junior architect, Durham-road, Blackhills.

Coulsdon. — Wesleyan Church (7,000*l.*); Messrs. Gordon & Gunton, architects, Finsbury House, E.C.; Mr. C. Brightman, builder, Watford.

Darlington.—Picture hall; Messrs. Clark & Moscrop, architects, Darlington. Additional accommodation at fever hospital (850*l.*); Darlington Construction Company, Ltd.

Denton. — Extensions, works, Manchester-road, of Messrs. T. & W. Walker, hat manufacturers.

Dodsworth.—Offices; Surveyor, Dodsworth Urban District Council.

Dorking.—Enlargement of parish church (1,800*l.*); the Vicar.

Earby.—Liberal Club, etc. (3,000*l.*); Mr. Jas. Hartley, architect, Skipton.

Eastbourne.—Plans have been passed as follows:—St. Andrew's Church, Seaside, Mr. W. Hay Murray, architect; twelve houses, East Dean-road, Mr. Jas. Vine, builder; additions, London County and Westminster Bank, Mead's-road, Mr. F. G. Cooke, architect, Messrs. Maple & Co., builders; additions, St. Aubyn's, Carlisle-road, for Mr. W. M. Harvey, Mr. W. J. Taylor, builder; alterations to stores, Junction-road, for Mr. A. Beeny, Mr. J. Bodle, builder. Plans have been lodged for shops and houses, Cornfield-road, for Mr. N. W. Evenden; Mr. A. A. Oakden, architect.

East Cowes.—Club, Osborne-road; local Liberals.

Eccles.—Plans have been passed as follows:—Six houses, Chapman-street, Messrs. Hardman & Jones; additions to Barton Hall Engine Works, Gorton-street, Peel Green, Messrs. L. Gardner & Sons, Ltd.; public baths, Cromwell-road, Patricroft, Eccles Corporation; six houses, Cook-road, Mr. W. Hanson.

Fenton. — School, Heron Cross (3,320*l.*); Messrs. Ball & Robinson, builders, Stoke.

Folkestone.—Theatre; Mr. G. H. Videar, 41, Bournemouth-road, Folkestone.

Gateshead.—Extensions to workhouse, Whinney House (26,000*l.*); Messrs. Newcombe & Newcombe, architects, Pilgrim-street, Newcastle. Additions to drill-hall (2,000*l.*); Mr. H. Chapman, architect, 38, Grainger-street, Newcastle.

Glasgow.—Library, Possilpark (5,340*l.*); Mr. Geo. Simpson, architect, 233, St. Vincent-street, Glasgow. Roman Catholic School for Church of Sacred Heart (3,200*l.*); Mr. C. J. Menart, architect, 21, West George-street, Glasgow. School, Bluevale district (9,000*l.*); Messrs. Cullen, Lockhead, & Brown, architects, Brandon, Chambers, Hamilton.

Harden.—Additions to works for Messrs. J. Steel & Sons.

* See also our list of Competitions, Contracts, etc., on another page.

Portion of the Frieze of the Parthenon.
(From "Sculptures of the Parthenon," British Museum.)

THE CARPENTERS' HALL LECTURES:

DECORATIVE SCULPTURE.

THE last of the course of lectures for the present session on Arts Connected with Building, arranged by the Carpenters' Company, was delivered on Wednesday last week in Carpenters' Hall, London-wall, by Professor W. R. Colton, A.R.A., on "Decorative Sculpture," Mr. William Robertson, Past-Master, presiding.

The lecturer said the subject was full of interest, and so mixed up with architectural, historical, and other questions that he hoped he would be excused if he departed somewhat from the main line of his argument now and then. Sculpture was decorative according to its quality and style, and the quality of sculpture was shown in the skill of its execution, and the style was naturally what the author of it wished to say. The Greeks generally aimed at dignity and calmness in their sculpture; they wished it to be calm, dignified, and to have no theatrical characteristics about it. The Egyptians strove for religious feeling—for the awe and intensity and expression of religious feeling; while in the Christian school there was rather a feeling of sacrifice and terror. In addition, there were such simple things as Love and Rest and so on, which were fine subjects for sculpture, but domestic subjects were not, as a rule, ones for sculpturesque treatment, such subjects as a child and a puppy dog not being suitable for fine sculpture. When there was no meaning behind a work, when it conveyed no impression, it was decidedly bad sculpture—just like architecture without meaning being bad architecture. One saw this in a good many modern architectural works, and even in such impressive buildings as St. Paul's Cathedral and Greenwich Hospital there were germs of what was hardly logical architecture. Several architectural features which originally had a constructional meaning had become useless as construction, and were merely conventionalised ornament. That was allowable as a convention, but we must draw the line somewhere and be logical in our architecture, or we should go wrong. Much architectural work of the day was illogical and senseless in some respects, as in the case of the arch, which should carry a superimposed mass, now used as a decorative feature with no weight above it. Then, again, the lintel, logically intended to take the weight above it, was broken by a keystone—often by several keystones, even in otherwise fine buildings. The tendency in this respect was for these keystones breaking into a lintel to become larger and larger or more numerous, and a constructional feature ceased to be anything but an ornamental one, and he could not see what excuse there could be for going against the whole principle of construction.

The Greek pediments were decorated with beautiful figures, and these figures, though far from the eye, lost none of their beauty by being highly wrought. That was a point he wished to emphasise—*i.e.*, the Greeks never failed to make their sculpture figures beautifully finished, and the back parts were as beautifully finished and wrought as the front. The Greek artist never thought that any power was lost by a finished figure, but nowadays we were inclined to think that we lost power in finishing a figure beautifully if placed some distance from the eye. In modern buildings roughly-shaped blocks, which hardly represented figures at all, were used when well above the eye, and that was the modern idea of how sculpture should be done for architectural usage; but that was not the Greek way. In looking at the Parthenon frieze, the Elgin marbles, etc., it almost seemed as though the Greek artists were thinking of the time when their work would be broken up and placed in museums. Every part of these works was a thing of delight, but that could not be said of modern sculpture done for architectural purposes. Of course, conditions had changed, and time was not of such importance then, and perhaps not money. Emperors and rulers were prepared to pay and to wait. If a few years were taken nowadays over a great memorial the sculptor was grumbled at, and the best work could never be done under these circumstances. The best work took time and cost a good deal of money. Nowadays, the higher up sculpture was placed upon a building the cheaper it must be and the rougher it must become. Parts of the Parthenon frieze to be seen in the British Museum, placed inside the Parthenon and high up, were superbly rendered and modelled.

It was supposed by some people that the Parthenon frieze was coloured. It might have been coloured at some time by some Emperor who loved colour, but he was quite certain it was never coloured by the sculptor himself or with his permission. Colour on a subtly-rendered surface of that sort would be absolute vandalism. The years of labour it must have taken to bring that work to perfection would be lost with colour applied to it, and the colour put upon that frieze must have been applied at some later period. Colour had its advantages, of course. Thick pigment was effective at a distance, and was welcomed by the worst sculptors, because it covered a multitude of sins. As to whether it was coloured to preserve it, if one ruined a thing to preserve it he did not see the point. Colour, of course, was used in certain sculpture work by the Greeks, the Assyrians, and Egyptians, and also coloured materials, but not, he thought, on their highest works of art. The great statues in the Grecian temples, such as Minerva and Jupiter, by Phideas, were coloured. The eyes and drapery were coloured, but this was a different matter, for these statues were gods or godesses, and they were not sculptured in the ordinary sense, and they were not of the architecture of the temple in the ordinary sense; they were the deities of the temple, and they were coloured in order to impress the common people, for the coloured figure was more easily understood, and these deities possessed the temples, as it were, and they were to strike awe and terror in the beholder. They were so colossal, too, that the colour had little effect on the modelling, which was not so subtle as in the other work.

Fireplace in Dorchester House.
By Alfred Stevens.

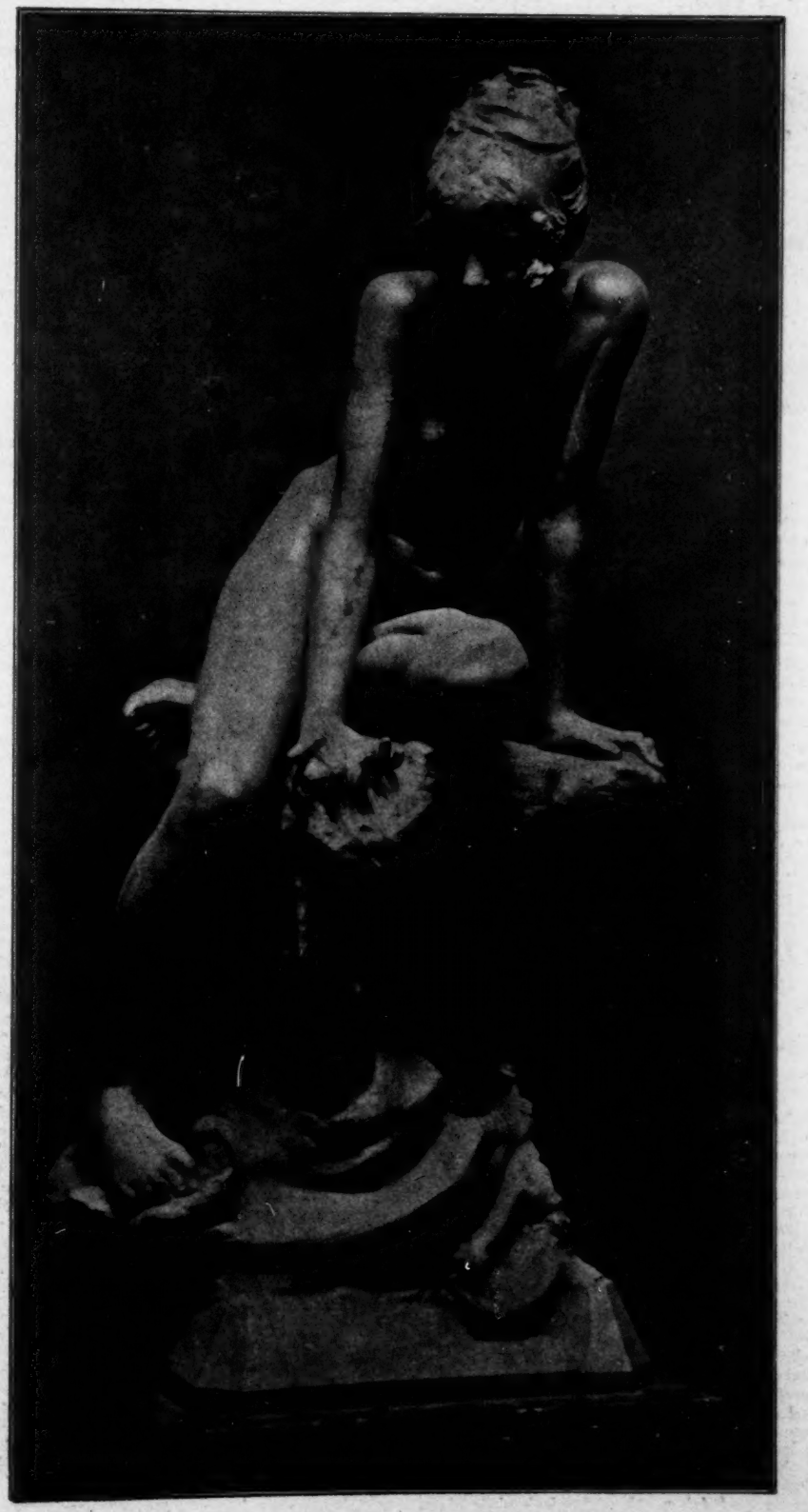
The lecturer having read some observations on colour by a previous professor of sculpture at the Royal Academy bearing out these remarks, then showed the Belvedere torso. It was one of the greatest in the world, and was supposed to be the foundation upon which Michelangelo founded himself. In the work of Michelangelo there was a great difference from the work of the more primitive Greeks. The Greeks had their simple tastes, simple ideas, and their sculptors crystallised these ideas into very definite form. Pericles inspired the great sculptors and architects of Greece, his being the moving mind of Greece, and there could be no other explanation of that wonderful period in Greece. Michelangelo was brought up in a different school, under a different religion, and he portrayed more strenuous feelings—the elements of religious mystery which had then been felt, and he wished to portray something behind what he did, *i.e.*, a great moving spirit. Apart from this, he seemed to have founded himself upon the Belvedere torso as far as the modelling was concerned—the light and shade rippling over the muscles and the different planes of the various parts of the body.

The lecturer showed several views in illustration of his remarks, and drew particular attention to the impressiveness of the work. That was what Michelangelo always wished to express—an immense and intense feeling at the back of his work. But

Michelangelo was not so particular about proportions, yet in his disproportions he tried to make one feel what he wanted one to feel. In his group of Christ and the Madonna one saw the disproportion, Christ being a grown man upon the lap of His Mother, She being very much bigger in proportion to Christ. The pediment of the sarcophagus of Guiliano de' Medici in the new Sacristy, San Lorenzo, Florence, was much too small for the figures, and they had a sliding-off effect, and the proportion seemed too small, but in the British Museum, and also in Paris, were drawings by Michelangelo showing that in the original design these portions were not so small, and why the original was departed from it was not easy to say. One of Michelangelo's works, which would attract a great many pilgrims if it were abroad, was to be seen in the Diploma Gallery of the Royal Academy. It was worth untold gold, but as it was only a few steps out of Piccadilly few people went to see it. It was unfinished in places, but that was like so much of his work; there was not time for him to finish the greater part of the work he was engaged upon. A great artist of the present day, perhaps the greatest sculptor of France, *i.e.*, M. Rodin, was a man with a mind behind him, but he was an innovator and a very dangerous instructor to sculptors. Although M. Rodin pretended to have founded himself on Greek Sculpture, he had founded himself entirely on Michelangelo, and he finished his work less than Michelangelo did. Where Michelangelo left work unfinished because he was obliged, Rodin left it unfinished intentionally, and he copied Michelangelo in the good side of his work—pose, light, and shade, and mass—but in the bad also, *i.e.*, in the bad proportions, and his malformations were done with the idea of impressing thought upon the observer. The danger of this work of malformation and disproportion was that it might lead to the fine ideals and intentions of Classical art being displaced. No doubt most of his hearers had seen the Post-Impressionists at the Grafton Gallery, and that exhibition showed the same movement—a movement of eccentricity, the attempt to portray something which was hardly capable of portrayal, and dignified Classical art was displaced in favour of such eccentricities. A curious thing that was happening to sculpture was the mutilation of statues. The school which had existed for some years in Europe had now formed itself into a school for the mutilation of sculpture, and in an ordinary exhibition in London he had seen a large number of these mutiliated works. Not content with a beautiful figure conveying some idea, it had been discovered by a certain school that to lop off a leg, or two legs, or an arm, or two arms and a head greatly enhanced the value of an artistic production; at any rate, it lent more to the imagination. He understood how the sculptor felt about the matter: it was easier to do a portion than the whole, and if one cut off a leg and called that one work of art, and a torso another work, and so on, it saved time. But he wondered that the public put up with this sort of thing.

The lecturer then showed some characteristic examples of this class of work. Proceeding, he said he hoped this was not the sculpture we should have upon the new City bridge. That was a chance which might never occur again of doing something beautiful in the City. He could imagine the approach to the bridge having beautiful groups and being really a fine thing. He was not an expert upon the question of the direction of the bridge across the river, but it seemed to him that whichever direction it took the buildings could be cleared away round St. Paul's Cathedral so as to enhance the value of the few artistic elements in that neighbourhood immensely, and with fine approaches of beautiful sculpture at the entrances, it was a chance we might never get again; and he hoped that whatever was done would be done in the finest way possible. Utility was something, but so was beauty, and we must not forget that. There was the beauty of line, of soul, as well as mere ease of communication. A very charming bridge, although the sculpture was not particularly good, was the Alexandre III. Bridge in Paris. It was a very effective work, and it had piers on each side with sculpture upon it. It made one think, and it was that which was wanted in decoration: it was the kind of decoration that made one dream and build castles and rouse one's mind and take it away from the thought of making a few pounds. It made one think of something else which should be an object in life, *i.e.*, the making of a fine and beautiful thing. England was a land of good intentions, and all over the country we saw plinths, pedestals, niches, but with nothing on them. We started with niches to be filled with sculpture, but the sculpture never came. It seemed to be the idea that a work was finished when the kitchen accomodation, etc., was provided. We recently built a processional arch for kings to pass beneath, and we were not satisfied with that simply and making it a beautiful thing, but we must make it a residence for someone. He could not see the logic or the sense of such a thing, and he could imagine the domestics looking from that residence to see the kings pass! But there was a slight return on the money expended! That would appeal to some people, but he did not understand it. Nothing for beauty's sake alone seemed to suffice, and we always seemed to want to graft the useful on the beautiful, instead of making the beautiful useful in its utility. The refining influence of beauty on the human mind was tremendous. People did not seem to realise that half the vices of mankind would be cast aside if the human mind was properly brought under the refining influence of beauty at an early age. Many hundreds and thousands of young people were taught preliminary drawing and so on, but they were not surrounded with beautiful objects. We did not teach the appreciation of beautiful objects—beautiful landscape, architecture, sculpture, etc.—but those things must be brought near to the people not only in the West-end, but in the East-end. Our board schools should be beautifully decorated, for it would pay us over and over again to cultivate the human mind. Why should not the play-yards of the school be made into something of a garden and a bronze fountain be placed therein?

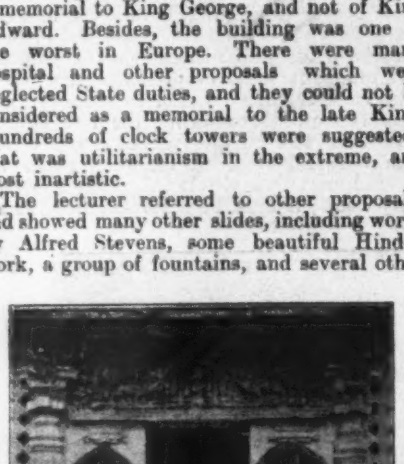
The lecturer then referred to some of the proposals for commemorating the late King. There were two qualities about a memorial which were inherent. A memorial to be a memorial must be a visible thing, and it must justify itself; it must be a love-offering, as a



"The Wavelet." By Professor W. R. Colton, A.R.A.

sacrifice to the dead, free of any obvious or hidden benefit to the giver. It should be in the nature of a gift. When Prince Albert died one town put forward a memorial for a Prince Albert Royal Memorial Sewer! This was the very worst spirit in which to think of a memorial. Some of the proposals made to commemorate King Edward also appeared to him to be very strange, such as the proposed substitution of King Edward's statue for Nelson's in Trafalgar-square and the changing of the name of the square; the doing up inside and outside of the Mansion House; and the rebuilding of the façade of Buckingham Palace. This last work was a neglected State duty, and if undertaken it would be a memorial to King George, and not of King Edward. Besides, the building was one of the worst in Europe. There were many hospital and other proposals which were neglected State duties, and they could not be considered as a memorial to the late King. Hundreds of clock towers were suggested; that was utilitarianism in the extreme, and most inartistic.

The lecturer referred to other proposals, and showed many other slides, including works by Alfred Stevens, some beautiful Hindoo work, a group of fountains, and several other



Example of Indian Sculpture.

works. In conclusion, he said we must bring sculpture to the mass of the people and teach them to appreciate it. We should throw back the railings of our parks, make terraces open to the roads, and provide sculpture, trees, and beautiful railings. Let the people get close to statuary and learn to love it. They could not appreciate sculpture in museums and galleries, which were for the highly educated, and even then they gave headaches. We wanted good work close to us, where we could value it. We made a mistake in putting things entirely in museums. The school-house and the play-yard should be made use of, and fine designs should be brought to where the worker lived and worked. It was impossible to learn the legend of art in going up to South Kensington on a holiday trip. What was there at Peckham, Dalston, and Kensal Green to stimulate the people in art?

A hearty vote of thanks having been accorded to the lecturer, Mr. R. Cobay, the Master of the Company, mentioned that the lectures, sixteen in all, arranged by the Company for this session were now at an end, and on the motion of one of the audience a hearty vote of thanks was passed to the Company for the series.

LONDON COUNCILS.

Chelsea.—Mr. G. W. Booth, on behalf of the Vale Estate, Ltd., 34, Victoria-street, S.W., has applied for sanction to the laying out of a street 40 ft. wide out of the east side of Vale-avenue. Underground conveniences are to be erected in Manor-gardens. Estimates will be submitted in due course.

Greenwich.—Shooter's Hill-road and Park-lane are to be repaired with granite at an estimated cost of 1,300*l.* Tenders are to be invited for forming and paving as a new street a portion of Straightsmouth. Plans have been passed for the London Building Estates Development Company to erect twenty houses in Hervey-road and Woodville-road.

Hendon.—The Rural District Council have passed plans for Mr. W. Tompkins for six houses, Cornwell-road, Pinner. Plans have been lodged for a proposed Salvatorian House for the Salvatorian Fathers, High-street, Harrow Weald.

Heston and Isleworth.—The following plans have been passed:—Messrs. Hodgkinson & Son, alterations to Hippodrome, Hanworth-road, Hounslow; Mr. H. W. Hiscock, six villas, Chapel-road, Hounslow; Mr. A. C. Stephens, extensions to laundry, Stanley-road, Hounslow; Messrs. P. Chase Gardener & Co., ten houses, Kingsley and Lampton roads; Mr. J. E. Franck, church hall, corner of Clifton-road and Thornbury-road. Plans have been lodged by Messrs. Hamilton for twenty shops in Thornbury-road, Spring-grove.

Leyton.—The following plans have been passed:—Mr. W. H. Cockcroft, eight houses, Colchester-road; Mr. J. W. Atkins, alterations to theatre, 696, High-road; Mr. A. Radcliffe, eight houses, Chesterfield-road. The following plans have been lodged:—Mr. J. Dunn, four houses, Seymour-road; Mr. R. Creed, hall and institute, High-road.

Poplar.—A preliminary estimate of the approximate cost of the extensions proposed at the generating-station shows a total of 42,455*l.* Extensions to buildings and the erection of a pumping-station will, it is believed, cost 13,810*l.* of this. In addition to the 42,455*l.* expenditure mentioned, it is also intended to provide mechanical means of handling coal from railway siding or canal to the works. The cost of this, including erection of stores, is estimated at 6,000*l.* The Council has deferred the consideration of the entire scheme pending a report from the Finance Committee. Plans have been passed for Messrs. F. & F. H. Higgs for the building of All Saints' Institute.

Southgate.—The Urban District Council has passed the following plans:—Mr. A. Sykes, five shops and houses, The Market, Green-lanes, Palmer's Green; Mr. G. Jackson, eight shops and houses, Green-lanes, Palmer's Green; Miss S. J. Ford, rebuilding two cottages, and alterations to shops, Tottenhall-road, Palmer's Green; Messrs. Edmondsons, Ltd., fifteen shops and houses, The Broadway, Winchmore Hill; Mr. W. A. Goring, six houses, Oakfield-road, Southgate; Mr. C. W. Tout, fifteen houses, situated in Harlech-road, Southgate.

Wandsworth.—The Highways Committee has provisionally decided that the plans required in connexion with new streets be copied by Messrs. Halden & Co., Ltd., and Messrs. B. J. Hall & Co., Ltd., at 60 per cent. off schedule prices in all cases. Tenders are to be invited for paving Arragon-gardens, Streatham, and a portion of Daysbrook-road, Streatham. Messrs. E. Parry & Co. are to pave part of Cotefordstreet, Tooting, with Victoria indurated paving at 509*l.* 10s. The Borough Surveyor's estimate for this work was 489*l.* 19s. 8d. The same firm are to pave with similar material a part of Lessingham-avenue, Tooting, at 589*l.* 10s., the Surveyor's estimate being 578*l.* 11s. The Baths Committee have come to the conclusion that more swimming accommodation in covered buildings is required for the eastern side of the Borough. The Committee are to report as to a suitable site, or sites, with estimates, etc. The following plans have been passed:—Messrs. W. H. Gaze & Sons, Ltd., saw mills, The Plain, Southfields; Mr. B. E. Nightingale, church, Mitcham-lane, Streatham, corner of Welham-road; Mr. H. F. Buchan, eight houses, Kirkstall-road, Streatham; Messrs. Limpus & Son, tea-rooms, etc., at Messrs. Holdron's premises, Russell House, Balham High-road, also factory, stables, and garage, Park-hill, Clapham South; Temperance Billiard Halls, Ltd., billiard-hall at Mitcham-road, Tooting Broadway.

Watford.—Plans have been passed by the Rural District Council as follows:—Messrs. J. Dickinson & Co., Ltd., additions to Apsley Mills, Abbots Langley; Mrs. Cope, addition to Darhills, Aldenham. Builders are to be warned of the penalties attaching to commencing work before plans have been approved by the Council.

West Ham.—The following plans have been passed:—Messrs. W. & T. R. Milburn, additions and alterations, "Empire" music-hall, Broadway, Stratford; Mr. R. M. Allen, additions at Messrs. G. H. Leavey & Co.'s, Ltd., premises, Broadway, Stratford; Mr. J. Sayer, additions and alterations, 7, Maryland-point, Stratford; Mr. W. Harris, five shops and houses, Albert-road, Silvertown. Plans have been lodged as follows:—Mr. E. Pratt, adaptation of 17, High-street, Stratford, for cinematograph theatre; Mr. E. Cannell, additions and alterations, 378, High-street, Stratford. Sanction has recently been received from the Board of Trade to the borrowing of 10 000*l.* for the purpose of erecting car sheds in Greengate-street, Plaistow. The tender of Mr. W. Harbrow has been accepted at 439*l.* for a temporary addition to the Custom House Boys' School. The Council have accepted an offer from Messrs. J. A. Hart & H. E. Dickman of 300*l.* per annum for the tenancy of the upper portion of the Swan tramcar depôt. It is proposed to carry out alterations so as to adapt the premises for giving cinematograph exhibitions, etc. The following plans have been passed:—Mr. A. Hicks, meat store, rear of 91, Woodgrange-road, Forest Gate; Mr. J. M. H. Gladwell, sixteen houses, Claypole-road, Stratford; Mr. W. H. Allerton, ten houses and two shops, Prince Regent's-lane, Plaistow; Mr. H. Brickell, glass factory, Pacific-road, Canning Town; Mr. H. Curtis, extensions to St. Paul's Mission Hall, rear of 190, Leyton-road, Stratford.

Westminster.—Wood is to be substituted for macadam and setts in South-street at an estimated cost of 185*l.*, and repairs are to be carried out in Exhibition-road to cost 180*l.* A plan has been lodged by Messrs. F. Matcham & Co. for a building (Victoria Palace) in Allington-street.—Messrs. Rooper & Whately, solicitors, 17, Lincoln's Inn-fields, recently wrote to the Council to the effect that the leases for the block of property stretching from Coventry-street to Shaftesbury-avenue, and known as the Arundell Estate, would fall in in 1915. It was proposed to rebuild the property at the date mentioned, excepting the Shaftesbury-avenue portion. Negotiations followed the receipt of the letter with regard to the question of closing Arundell-street and square, and interviews took place between the Valuation Surveyor of the Council and Mr. W. Hurst Flint, of Messrs. Humbert & Flint, 11, Serle-street, Lincoln's Inn, W.C. In the result the Improvements Committee decided (subject to the usual sanction) to consent to the closing of the street and square in consideration of the payment to the Council of 12,500*l.* The Secretary of the Surveyors' Institution has forwarded copy of plans prepared by Mr. Paul Waterhouse for an extension to the Institution buildings. The Institution asked for permission to enclose a portion of Prince's-mews with iron railings, and this has been agreed to by the Improvements Committee, subject to protective conditions. The same Committee has provisionally accepted the tender of Messrs. Mowlem & Co., Ltd., for street formation works in connexion with the Mall improvement, at an approximate cost of 1,788*l.*

Willesden.—Tenders are to be invited for making-up Coverdale-road. Part of Kendall-road is to be made and paved. The Council have under consideration a report from the Baths Sub-Committee as to the advisability of erecting public baths at Church End at a cost not to exceed 16,500*l.* The scheme includes one swimming-bath, 75 ft. by 35 ft., with two cleaning troughs, shower-bath at the shallow end, and dressing-boxes; one Russian steam-bath, one large waiting-room, caretakers' apartments, ticket office, boiler-house (containing two boilers and mechanic's bench), twenty-four slipper-baths (for both sexes), establishment laundry (with sufficient machinery to meet the requirements of the whole baths of the Council), and one artesian well.

Wood Green.—Application is to be made to the Local Government Board for sanction to borrow 1,073*l.* for improvements in Norman-avenue, and 1,575*l.* for improving Vallance-road.

Woolwich.—Tenders are to be invited for the erection of a shelter and convenience at the Eltham tramway terminus. A portion of Shrewsbury-lane is to be made up as a new street at an estimated cost of 2,320*l.* Mr. W. H. Browning, surveyor and estate agent, Eltham, has approached the Council with the object of taking a lease of a vacant site in High-street, Eltham, for the purpose of erecting thereon an electric theatre. The offer includes a condition of expenditure of not less than 5,000*l.* on the proposed building. The following plans have been passed:—Mr. J. J. Bassett, 121, Earlshall-road, Eltham, eight houses; Mr. F. Hird, Bowater-road, Woolwich, new apparatus shop, Harden's Manorway, for Messrs. Siemens Bros. & Co., Ltd.

OBITUARY.

Mr. Walter Andrew.

We regret to announce the death of Mr. Walter Andrew, architect, of Parkstone, Dorset, which occurred on Thursday, the 30th ult., at Sligo. Most of his work was carried out on the Wimborne estates, and it included a number of residences at Parkstone, schools, and other buildings in the Bournemouth district. Mr. Andrew was for some years captain of the Hampshire County Cricket Team, and was an ardent lover of outdoor sports.

The Late Sir Caspar Purdon Clarke.

In addition to the particulars given in our last issue (p. 414, *ante*), we may mention that Sir Caspar Purdon Clarke, C.V.O., C.I.E., F.S.A., Commdr. Crown of Prussia, Chev. Légion d'Honneur, Hon. LL.D McGill University, Canada, and member of the Royal Asiatic Society, was a son of Edward Marmaduke Clarke, of Richmond, Co. Dublin,

and was educated in France and at Gaultier's Collegiate School, Sydenham. He was elected a Fellow of the Royal Institute of British Architects in 1888, and was the architect of the National Training School of Cookery in Buckingham Palace road; the West Park Museum, Macclesfield; Alexandra House, Kensington-gore, for students of music; Cotherstone Church, Durham; the Indian Palace in the Paris Exhibition, 1889, when Agent of the Indian Government; and the "Palais Indien" *café* in the Rue Auber, Paris, 1890. He made a complete set of drawings, with details, of the Houses of Parliament for Dr. Percy when the latter was commissioned to reorganise the heating and ventilating arrangements, and carried out the restoration of the ceiling and panelling of the Duchy of Cornwall Council Chamber of Henry Prince of Wales, *temp.* James I., in No. 17, Fleet-street—formerly the Fountain tavern as rebuilt, in 1610-1, by John Bennett. Five years after he had left the South Kensington Training Schools (where he won the National Medallion for Architectural Design) he was sent to Italy (1870) as superintendent of mosaic reproduction in Venice and Rome; in 1872 he completed the decorative work in St. Mark's Church, Alexandria, for the late James Wild; in 1874 he went to Persia to complete the British Embassy buildings in Teheran, and four years afterwards was appointed an architect to the Royal Commission and agent to the Indian Government for the Paris Exhibition, 1878. He was a Royal Commissioner and Juror in Vienna, for the Paris Exhibition, 1900, and the St. Louis, Missouri, International Exhibition, 1904; he went to India in 1879 and 1885 in the service of the Science and Art Department, South Kensington, and, as Keeper, rearranged the collections of Oriental art that formerly belonged to the India Office. He wrote many papers, and frequently lectured, upon archæology and the applied arts. He was the recipient of a silver loving-cup just before his departure for America as Director of the Metropolitan Museum of Art, New York. Upon his retirement in last June from that post through ill-health the trustees appointed him their honorary European correspondent, and awarded him a handsome retiring allowance, with pension (one year's pay and 1,000*l.* per annum).

LAW REPORTS.

COURT OF APPEAL.

(Before the MASTER OF THE ROLLS and Lords Justices FLETCHER MOULTON and BUCKLEY.)

Converting a Chapel into a Theatre.

Rose *v.* Hyman.

THIS case came before the Court last week upon the defendant's appeal from a decision of Mr. Justice Horridge in the King's Bench Division refusing the defendant's application for relief against forfeiture under sect. 12, sub-sect. 2 of the Conveyancing Act, 1882, the alleged forfeiture having been incurred for breach of a covenant to repair in a lease dated May 28, 1845, of which the defendant was the assignee.

The facts of the case sufficiently appear from the following judgment of the Master of the Rolls:—

His lordship said that in 1844 an agreement was made under which a chapel was to be erected in conformity with plans and specifications signed by lessor and lessees. In pursuance of that agreement the lease of May 28, 1845, was granted for a term of ninety-nine years less ten days from Christmas, 1842, at an annual rent of 33*l.*, and the lease contained a covenant to complete the chapel, with its appropriate offices and all appurtenances thereunto belonging, before mid-summer, 1846. He inferred that the chapel as erected, including the dwarf boundary wall and iron railings, was in conformity with the plans stipulated for by the lessor in 1844. There was nothing in the lease itself to create a charitable trust, but that was created by a subsequent declaration of trust. For upwards of sixty years the chapel as originally built was used as a chapel; but under an order of the Charity Commissioners, the leasehold interest was sold, and the lease in December last was assigned to the defendant, who proposed to alter the building so as to adapt it for a theatre. Meanwhile, the property had fallen out of repair, and a notice to repair was served on the then owner of the lease, and as that notice was not complied with, the plaintiff in November last issued a writ to recover possession on January 24, 1911. A writ was issued against the present defendant, and in February, 1911, he took out a summons seeking relief from the forfeiture. It was not disputed that the plaintiff's title to possession was good unless relief was granted. The defendant had remedied, or would remedy forthwith, the breaches alleged in the notice to repair so far as the changes made in the building admitted. But the difficulty arose from the fact that the defendant had opened a door in the main wall into St. Peter's-street; removed the railings and dwarf wall on the north and west sides, thus throwing strips of ground into the streets; removed the gallery staircases near the north entrance and substituted new staircases at the southern end; and there were other less important alterations in the interior. His lordship said he was of opinion that these were acts of waste of such a nature that the Court would have restrained the lessees from committing them, and they had entirely altered the character of the demised building. He thought the acts he had referred to were breaches of the covenant to repair and keep in repair. It was not a case in which nominal damages alone could be recovered, and the actual pecuniary loss to the plaintiff was not necessarily the measure of damages. Defendant avowed the intention of keeping the door open, and claimed the right to make and maintain the alterations effected, without which the building could not be used as a theatre. His lordship did not think that the defendant was entitled to relief, and that the appeal failed, and should be dismissed with costs.

Lord Justice Moulton concurred.

Lord Justice Buckley differed.—He said that in his opinion the alterations did not amount to breaches of the covenant. No doubt the Court had to look to see whether the acts done were such as to diminish the value of the reversion, but he could find no evidence that they would do so. On the contrary, he thought the value of the premises would be increased. The terms which the lessors suggested as those alone upon which relief should be granted were that all the alterations should be cancelled, and the building reinstated as it was before. The lessees were willing to deposit a reasonable sum sufficient to ensure the entire restoration of the premises to their former condition as a chapel at the end of the term, and while accepting that offer, his lordship thought the proper terms were that the lessees should, to the satisfaction of the lessor's architect, so pave the ground lying within the line of the former fence as to distinguish it from the adjacent footpath, and should from time to time erect a proper fence to the like satisfaction, consisting of uprights resting in sockets in the ground, connecting the one to the other by chains or bars, so as to form a fence in the line of the former fence, and that the lessees should repair the whole building consistently with the requirements of the notice to repair. He thought upon those terms relief should be granted.

By a majority of the Court, therefore, the appeal was dismissed with costs.

Mr. Buckmaster, K.C., and Mr. Disturnal appeared for the appellant; and Mr. P. O. Lawrence, K.C., and Mr. G. H. Higgins for the respondent upon the appeal (the plaintiff).

TRADE CATALOGUES.

Messrs. C. & R. Light, Ltd., 134 and 146, Curtain-road, London, E.C., forward us a booklet of illustrations of the new works which they have lately erected at Bedford. The Bedford Cabinet Works, as this new manifestation of the firm's enterprise and business acumen is designated, are equipped with the most up-to-date machinery, and the designing department has been enlarged and reorganised. Messrs. C. & R. Light wisely recognising that design is the keynote of success in the furniture trade. The firm also send us prices of their "Bestwood" panelling, which they claim to be the cheapest on the market.

Messrs. David Rowell & Co., of 31, Old Queen-street, Westminster, send us an artistically-designed leaflet concerning the "Barrol" patent chimney-pot. It is claimed that the "Barrol" pot is an effective means of obviating down-draught, being designed by its peculiar formation to draw out the smoke and actually assist a sluggish chimney, or to increase the up-current in a perfectly-built stack. The appearance of the pot is by no means ugly, and it is, besides, economical in price.

The Globe Electric Company Ltd., of 11, Farringdon-avenue, London, E.C., forward us their pamphlet M. 15, describing the "Multax" long-burning flame arc-lamp, of which they are the sole makers. It is claimed that the "Multax" possesses double the burning hours of any non-magazine lamp of similar length. The patent "Bridge-Core" carbons secure regular consumption and steady burning, and are, besides, stronger than ordinary carbons, breakages being thus reduced to a minimum. All working parts are completely enclosed, affording ample protection from the fumes created by the highly-mineralised carbons used. The "Multax" lamp is supplied in two patterns, for twenty and thirty-six burning hours respectively.

PATENTS.

APPLICATIONS PUBLISHED.*

1,682 of 1910.—George Henry Kinsey: An improved ventilator.

5,508 of 1910.—Alldays and Onions, Pneumatic Engineering Company, Ltd., and Phillip John Wilson: Pneumatic hammers.

5,584 of 1910.—Nicholas King Turnbull and the British Steel and Wire Company, Ltd.: Machine for remaking wire drawing dies.

6,241 of 1910.—Henry Caplane and Gaston Clavelier: Manufacture of bricks, blocks, slabs, panels, mouldings, or the like of peat or cork, and apparatus therefore.

12,241 of 1910.—Henry James Yates: Gas fires and other like heating apparatus.

14,014 of 1910.—Jakob Louis and Jakob Kilburg: Apparatus for raising and lowering roller blinds of any kind, such as for windows, doors, and partitions for dwelling-houses and shops.

15,310 of 1910.—Heinrich Eberlein: Metal skeleton or framework for concrete structures.

15,731 of 1910.—Alfred Champion: Electric junction-boxes and similar chambers.

19,413 of 1910.—Firm Anglo-Oesterreische Bank: Fastenings for doors or the like.

20,035 of 1910.—Max Rudolf Degelow: Slab and like gauging machines.

21,130 of 1910.—Friedrich Ludwig Keppler: Glazed ferro-concrete structures, such as floors.

22,129 of 1910.—Mano Roth: Covering for floors, walls, ceilings, and analogous purposes.

23,023 of 1910.—James Thomas Butters, of Messrs. Butters Bros. & Co., and Alexander Morton Hume: Jib cranes.

23,171 of 1910.—Marius Dombald: Construction of reinforced ceilings.

29,597 of 1910.—Hugo Hecht: Portable parquetry. Scraping machines.

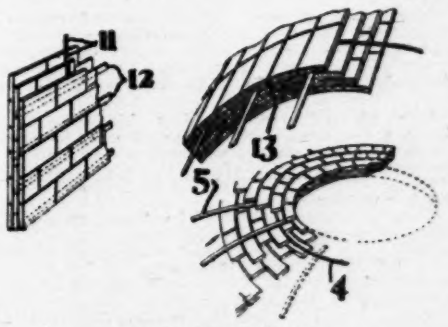
30,334 of 1910.—Harry Cyril Millican: Machines for cementing leaded glazed channels.

681 of 1911.—Doroteo Vi Cento Elordieta: Manhole covers for tank tops.

SELECTED PATENTS.

25,855 of 1909.—Rafael Guastavino: Reinforced brickwork.

This relates to structures formed of several thicknesses of thin tiles or slabs which are reinforced by means of bars 12, lying between the flat faces of the slabs, and rods 11, preferably of a twisted form, lying in the edge joints. In the application to an arch, the curved bars may be embedded in the end walls; the courses may be reinforced against shear in the bed-joints by short bars 13 crossing the bed-joints at right-angles. A dome may be reinforced by bar 4, 5. The bars in

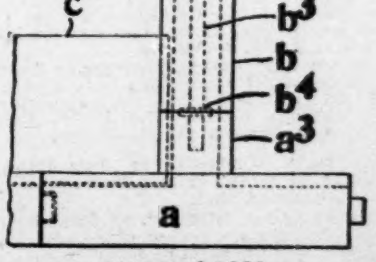


25,855 of 1909.

any of the forms may be in short lengths with overlapping ends.

26,000 of 1909.—Thomas Bawden Provis: Portable buildings.

This relates to a portable fireproof building,



26,000 of 1909.

the walls of which are formed of base blocks *a* having upstanding parts *a3* on which are mounted the blocks *b* forming the studding or

PATENTS—Continued on page 444.

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

List of Competitions, Contracts, etc.

For some Contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this Number: Competitions, iv.; Contracts, iv. vi. viii. x.; Public Appointment, xxi.; Auction Sales, xxviii.

Certain conditions beyond those given in the following information, are imposed in some cases, such as: the advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bonâ-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

***** It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

Competitions.

APRIL 15.—**Havana.**—Project for a Presidential Palace. See "Competition News" in issue of November 26. Particulars may be obtained at the Cuban Legation, 8, Grosvenor-mansions, Victoria-street, S.W.

* APRIL 18.—**Newton Abbot.**—COLLEGE.—The Governors of Seale-Hayne College, Newton Abbot, invite designs and estimates for new college. Three premiums of 100*l*., 50*l*., and 30*l*. are offered. See advertisement in this issue for further particulars.

APRIL 20.—**Argentine.**—A Hospital and School of Medicine, to be erected at Rosario in celebration of the Argentine Centenary, at a cost of about 149,000*l*. Prizes of 1,050*l*., 700*l*., and 440*l*. will be awarded. A copy of the conditions, etc., may be seen by British architects at the Commercial Intelligence Branch of the Board of Trade, 73, Basinghall-street, London, E.C. A limited number of copies is available for distribution.

APRIL 20.—**Leicester.**—PROPOSED PUBLIC HALL.—The Corporation invite the practising architects of Leicester, having offices in the town, to supply plans, designs, and estimates for the construction of a new Public Hall, proposed to be erected on land adjoining the Victoria Park and Regent-street. Conditions of competition can be obtained on application, accompanied by a deposit of 1*l*. 1s., being made to Mr. E. George Mawbey, M.Inst.C.E., Borough Surveyor, Town Hall, Leicester.

* APRIL 22. — **Stockport.**—POLICE-STATION AND COURTS.—The County Borough of Stockport invite designs for a police-station and courts. See advertisement in this issue for further particulars.

MAY 1. — **Manchester.** — LIBRARY AND ART GALLERY. — The Manchester Corporation invite designs for Library and Art Gallery upon the Piccadilly site. See advertisement in issue of January 13, and article in issue of January 20, and "Competition News" in issues of February 3 and 17.

MAY 5. — **Swansea.** — CASTLE-STREET IMPROVEMENT.—The Swansea Corporation invite designs and estimates for the improvement of Castle-street. Premiums of 250*l*. and 50*l*. are offered. See advertisement in issue of March 10 for further particulars.

MAY 10. — **Devizes.** — NEW WARD. — The Devizes Cottage Hospital Committee invite designs for a new six-bed ward at, and to make a general rearrangement of, their existing hospital. See advertisement in issue of March 31 for further particulars.

MAY 15.—**Chesterfield.**—The Standing Joint Committee for Derbyshire invite designs for the erection of a Court-house and lock-up, at a cost of 8,000*l*. Mr. Frank Baggallay, F.R.I.B.A., is appointed assessor. Open only to architects practising in the county. Particulars, 3*l*. 3s. deposit, from Mr. Geo. C. Copstick, L.R.I.B.A., County Offices, Derby.

JUNE 1.—**Bradford.**—INFIRMARY.—The Board of Management of the Bradford Royal Infirmary invite competitive plans, with estimates, for the erection of a new infirmary on a site in Duckworth-lane. See advertisement in issue of December 31 for further particulars.

JUNE 10. — **Aspatria, Cumberland.** — The U.D.C. invite engineers to submit plans for estimates of a scheme of sewerage. The surveyor will give particulars required.

AUGUST 15.—**Berne.**—Designs for the erection of a monument at Berne to celebrate the foundation of the International Telegraph Union. Conditions may be seen in the library of the Royal Institute of British Architects.

SEPTEMBER 12-25.—**Athens.**—COURT OF JUSTICE.—An international competition is instituted by the Ministry of the Interior, for the erection of Court buildings, to cost 160,000*l*. The *Official Gazette* may be seen at the Library of the R.I.B.A.

NOVEMBER 1. — **City of St. Petersburg.** — MONUMENT TO ALEXANDER II.—Particulars in our issue of August 13, 1910.

DECEMBER 29. — **Glasgow.** — DESIGN FOR A BRIDGE.—Designs are invited (Alexander Thomson Travelling Studentship) for a bridge. Premiums of 60*l*. and 20*l*. are offered. See advertisement in issue of December 24 for further particulars.

NO DATE. — **Inverness.** — REMODELLING OF ASSEMBLY ROOMS.—The Stewards of the Northern Meeting invite designs for remodelling of the Northern Meeting Assembly Rooms in Inverness. See advertisement in issue of March 10 for further particulars.

NO DATE. — **Lowestoft.** — SCHOOL. — The Lowestoft Education Committee invite designs for an elementary school. Premiums offered, 21*l*., 10*l*. 10s., and 5*l*. 5s. See advertisement in issue of February 10 for further particulars.

Contracts.

BUILDING.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

APRIL 8.—**Burford.**—BUILDING AN OPERATING THEATRE. Plans and specifications seen at the Hospital. Mr. Wyndham Hughes, Hon. Secretary, Fulbrook, Burford, Oxon.

APRIL 8.—**Harrowbarrow.**—SCHOOL.—Alterations to the offices at the school. Mr. B. C. Andrew, Architect to the Committee, Biddicks-court, St. Austell.

APRIL 8.—**Lustleigh.**—CLUB-HOUSE.—Erection of a club-house. Plan and specification at Mr. Glanville's, Melrose-terrace, Lustleigh.

APRIL 8.—**Maesteg.**—HOTEL.—Rebuilding the Horse and Groom Hotel, Maesteg. Plans seen, and quantities, on deposit of 2*l*. 2s., from Messrs. Cook and Edwards, M.M.S.A., Masonic buildings, Bridgend.

APRIL 9.—**Kendal.**—HOSPITAL.—Alterations and additions to the hospital. Plans seen, and quantities from Mr. John F. Curwen, F.R.I.B.A., F.S.A., architect and sanitary engineer, 26, Highgate, Kendal.

APRIL 10. — **Glenageary.** — HALL.—Parochial hall. Plans and specification with Messrs. W. M. Mitchell & Sons, Ms.R.I.A.I., architects, 2, Stephen's-green, N., Dublin, and quantities from Messrs. Paterson & Kempster, 95, Leeson-street, Dublin, on deposit of 1*l*. 1s.

APRIL 10.—**Innerwick, East Lothian.**—ADDITIONS.—Additions to farm offices. Plans and specifications with tenant at Templemains Farm House.

APRIL 10. — **Kendal.** — SCHOOL. — Rebuilding school. Quantities from Mr. John Hutton, M.R.S.I., architect, Kendal.

APRIL 10.—**Llandovery.**—HOUSES.—Six houses at Station-road. Plans with Mr. Thomas Roderick, architect, Ashbrook House.

APRIL 10.—**Long Eaton.**—LAVATORIES.—Erection of public lavatories. Quantities, etc., from Mr. F. Worrall, A.M.Inst.C.E., Engineer and Surveyor, Electricity Supply Works, Long Eaton, on deposit of 3*l*. 3s.

APRIL 10. — **Montgomery.** — IMPROVEMENTS.—Works of improvement at a school. Mr. L. Phillips, Clerk, Education Offices, Newtown.

APRIL 11.—**Bradford.**—ADDITIONS.—Extensions and additions to the medical officers' residence. Quantities from Mr. Fred Holland, the Architect to the Board, 22, Manor-row, Bradford, on deposit of 1*l*. 1s.

APRIL 11.—**Stockton.**—WALL.—Building of a brick wall. Plan and specification seen, and forms of tender from Mr. W. Heslop, Highway Surveyor, Norton-on-Tees.

APRIL 11.—**Thurles, Ireland.**—RESIDENCE.—Erection of a dispensary residence, etc. Plans and specification with Mr. T. Williams, architect, Clerk's Office, Thurles.

APRIL 11.—**Whitley.**—BANDSTAND.—Erection of a bandstand. Form of tender and further particulars from Mr. A. J. Rousell, A.M.Inst.C.E., Surveyor to the Council, Council Offices, Whitley Bay.

APRIL 12.—**Barnstaple.**—CONVENIENCE.—Erection of a public convenience. Particulars from Borough Surveyor, The Strand, Barnstaple.

APRIL 12.—**Barrow-in-Furness.**—ALTERATIONS.—For alterations to hospital. Quantities from the Borough Engineer's Office, Town Hall, on deposit of 1*l*. 1s.

APRIL 12.—**Belfast.**—WAREHOUSE.—Erection of a warehouse. Quantities from Messrs. W. H. Stephens & Sons, 13, Donegall-square North, Belfast, on deposit of 2*l*. 2s.

APRIL 12.—**Bristol.**—WALL.—Retaining wall and levelling and tar-paving the playground. Specifications from Mr. Peter Addie, Exchange, Corn-street, Bristol.

APRIL 12. — **Drumoak.** — POST-OFFICE.—Postmaster's house and post-office. Plan and specifications with Messrs. Alex. Stronach, jun., & Son, advocates, 20, Belmont-street, Aberdeen.

APRIL 12.—**Hertford.**—SCHOOL.—Erection of a school. Mr. Urban A. Smith, County Surveyor, Hatfield.

APRIL 12. — **Kexborough.** — INN. — Pulling down and rebuilding the White Bear Inn. Quantities from Messrs. R. & W. Dixon, architects, 5, Eastgate, Barnsley.

APRIL 13.—**Caerphilly, Glam.**—INN.—Additions to the Caerphilly Station Inn. Quantities, on deposit of 2*l*. 2s., from Mr. Henry J. Griggs, A.R.I.B.A., architect, Metropolitan Bank-chambers, Newport, Mon.

APRIL 13. — **Camborne.** — SCHOOL. — Roman Catholic school. Apply to Mr. Sampson Hill, architect, Green-lane, Redruth.

APRIL 13. — **Dorset.** — SCHOOL. — Elementary school. Mr. C. G. Bone, Secretary, Education Department, County Offices, Dorchester.

APRIL 14.—**Llangefni.**—COTTAGE.—Erection of a cottage at Tyddyn Gwynt. Plans and specifications with Messrs. Richard Davies & Son, L.R.I.B.A., architects, Bangor.

APRIL 14. — **Old Windsor.** — ALTERATIONS.—Alterations at the Windsor Union Workhouse. Plans and specifications from Messrs. Edgington & Spink, architects, Windsor.

APRIL 15.—**East Grinstead.**—SWIMMING BATH.—Open-air swimming bath. Particulars from Mr. W. E. Woollam, Engineer and Surveyor to the Council, East Grinstead, Sussex.

APRIL 15.—**Edeyrn, Wales.**—VILLAS.—Semi-detached villas. Plans and specifications with Capt. Williams, Angorfa, Edeyrn.

APRIL 15.—**Shrewsbury.**—SCHOOL, ETC.—New riding school and offices. Quantities, on deposit of 1*l*. 1s., from Mr. Frank H. Shayler, F.R.I.B.A., 16, Pride-hill, Shrewsbury.

APRIL 17.—**Scotland.**—NATIONAL GALLERY.—Reconstruction of the National Gallery. Drawings seen, and quantities obtained at H.M. Office of Works, 3, Parliament-square, Edinburgh, on deposit of 1*l*. 1s.

APRIL 18.—**Watford.**—DEMOLISHING.—Old Pest House buildings in Pest House-lane. Specification from Mr. D. Waterhouse, Engineer to the Council, Council Offices, High-street, Watford

* APRIL 19. — **Carnforth.** — ENLARGEMENT OF POST-OFFICE.—The Commissioners of H.M. Works and Public Buildings invite tenders for enlargement of Post-office at Carnforth. See advertisement in this issue for further particulars.

APRIL 19.—**Eldon.**—HALL, ETC.—Church hall and Sunday-school premises. Quantities from Mr. W. A. Kellett, architect, Bishop Auckland.

APRIL 19.—**Fishguard.**—DRILL-HALL.—Erection of a drill-hall, etc. Bills of quantities, on deposit of 1*l*. 1s., from Col. R. O. Lloyd, 7, Brodog-terrace, Fishguard.

APRIL 19.—**Heaton.**—POST-OFICE.—Erection of Newcastle-on-Tyne new branch post-office. Bills of quantities from H.M. Office of Works, Storey's-gate, London, S.W., on deposit of 1*l*. 1s.

APRIL 19. — **Huddersfield.**—ADDITIONS.—Erection of additions to store. Quantities from Mr. J. Berry, architect and surveyor, 3, Market-place, Huddersfield.

* APRIL 19. — **Luton.**—AWNING.—The Midland Railway Company invite tenders for erection of an awning over loading dock at Luton. See advertisement in this issue for further particulars.

* APRIL 19.—**Newcastle-on-Tyne.**—NEW POST-OFFICE.—The Commissioners of H.M. Works and Public Buildings invite tenders for new Branch Post-office, Heaton, Newcastle-on-Tyne. See advertisement in this issue for further particulars.

APRIL 19. — **Norfolk.** — SCHOOLS, ETC. — The Norfolk Education Committee invite tenders for alterations, etc., at their various schools. Quantities, on deposit of 1*l*. 1s., from Mr. Thos. A. Cox, Secretary, Education Offices, Shirehall, Norwich.

* APRIL 19. — **Wimbledon.** — TELEPHONE EXCHANGE.—The Commissioners of H.M. Works and Public Buildings invite tenders for telephone exchange at Wimbledon. See advertisement in this issue for further particulars.

APRIL 20.—**Burton Port, Co. Donegal.**—DWELLINGS.—One block of dwellings at Aranmore Island Lighthouse. Quantities, on deposit of 2*l*. 2s., from Mr. Hubert G. Cook, Secretary, Irish Lights Office, Carlisle-buildings, Dublin.

APRIL 21.—**Bradbury.**—CHURCH.—New church, Thornbury. Plans seen, and quantities from Messrs. Wright & Son, surveyors, Lancaster.

APRIL 21.—**Durham.**—Additions to the County Police-station at Chester-le-Street. Plans seen, and quantities from the County Surveyor's Offices, Shire Hall, Durham.

APRIL 22. — **Cheddar.** — BRIDGES.—Rebuilding at Hythe Bow and Canal Bridges. Drawings seen, and quantities, on deposit of 2*l*. 2s., from Mr. H. T. Chapman, County Surveyor, County Surveyor's Office, Wells.

APRIL 22.—**Halifax.**—ADDITIONS.—Erection of additions to West Croft Mills. Plans, etc., seen, and quantities from Messrs. Chas. F. L. Horsfall & Son, architects, Lord-street-chambers, Halifax.

APRIL 22.—**Llanelly.**—CHURCH.—New church at Pontyates. Plans and specifications with Mr. Wm. Griffiths, F.S.I., architect, Llanelly.

APRIL 24. — **London.** — ALTERATIONS.—Sundry small alterations at four schools in West Ham. Specification from Mr. William Jacques, A.R.I.B.A., Architect to the Education Committee, 2, Fenchurch-street, E.C., on deposit of 1*l*.

APRIL 24.—**Salford.**—SCHOOL.—New infants' school. Quantities, on deposit of 1*l*. 1s., from Messrs. Woodhouse, Corbett, & Dean, 100, King-street, Manchester.

BUILDING—*continued.*

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in.

APRIL 24.—**Worthing.**—SCHOOL.—Erection of a school of art. Quantities from Mr. Haydn P. Roberts, A.R.I.B.A., County Education Architect, Thurloe House, High-street, Worthing, on deposit of 1*l.* 1s.

APRIL 26.—**Erdington.**—LODGE, ETC.—Erection of a park-keeper's lodge and children's lavatories, and for the erection of lavatories and a pavilion shelter at Short Heath Park. Quantities, on deposit of 2*l.* 2s., from Mr. Herbert H. Humphries, Engineer to the Council, Council House, The Park, Erdington.

APRIL 26.—**Kearsley.**—SCHOOL.—New elementary school. Plans seen, and quantities from Mr Henry Littler, 16, Ribblesdale-place, Preston, on deposit of 2*l.*

* APRIL 25. — **Romford.** — POST-OFFICE.—The Commissioners of H.M. Works and Public Buildings invite tenders for erection of new Post-office at Romford. See advertisement in this issue for further particulars.

* APRIL 26. — **Hornchurch.**—INFANTS' SCHOOL, ETC.—The St. Leonard, Shoreditch, Guardians invite tenders for erection of infants' school and band and drill room at the Cottage Home, Hornchurch. See advertisement in this issue for further particulars.

APRIL 27.—**Reading.**—ALTERATIONS, ETC.—Erection of new buildings, and alterations, etc., Quantities from Mr. S. Slingsby Stallwood, F.S.A., architect, 27, Market-place, Reading, on deposit of 2*l.* 2s.

APRIL 29.—**Bristol.**—SCHOOL.—Additions to Cadbury Heath Council School. Particulars from Mr. R. S. Phillips, architect, Shire Hall, Gloucester, on deposit of 2*l.* 2s.

* MAY 12.—**Colchester.**—DETACHED BUILDINGS.—The Visiting Committee of the Essex County and Colchester Borough Lunatic Asylum invite tenders for several detached buildings at the new second Asylum, near Colchester. See advertisement in this issue for further particulars.

No DATE. — **Ainstable.** — SCHOOL.—Improvements to school. Apply to Mr. I. Forster, clerk of works, 13, Earl-street, Carlisle.

No DATE.—**Bargoed.**—HOUSES.—Additions to Tydfil House Plans and specifications with Mr. P. Vivian Jones, P.A.S.I., architect, Bargoed.

No DATE.—**Belfast.**—CHURCH.—Erecting a church. Mr. E. H. Lingen Barker, architect, 21, Prince's-square, London, W.

No DATE.—**Bingley.**—COTTAGES.—Alteration of cottages at Crossflats. Plans and specifications with Mr. H. Cockshott, Pearleigh, Morton.

No DATE.—**Brighouse.**—SCHOOL.—Erection of a Council school. Quantities from Messrs. Sharp & Waller, architects, 32, Bradford-road, Brighouse.

No DATE. — **Burntisland.** — SCHOOL.—Alterations and extensions to the public school. Apply to Mr. W. Roger Simpson, architect and surveyor, Burntisland.

No DATE. — **Crossgates.** — SCHOOL-CHAPEL. — Erection of small school-chapel. Quantities from Mr. H. E. Illingworth, A.R.I.B.A., architect, 8, East-parade, Leeds.

No DATE.—**Dundee.**—BOWL-HOUSE, ETC.—Bowl-house, Lochee Park; alterations at Albert Institute; painting district police-stations; alterations on shops, Princes-street Quantities from Mr. J. Thomson, City Engineer, 91, Commercial-street, Dundee.

* No DATE.—**Felixstowe.**—SIX HOUSES.—The Coast Development Corporation, Ltd., invite tenders for six houses at Felixstowe. See advertisement in this issue for further particulars.

No DATE.—**Horbury.**—HOUSES.—Erection of four houses. Plans with Messrs. W. & D. Thornton, architects, Bond-street, Dewsbury.

No DATE.—**Lossiemouth, Scotland.**—HOUSE.—Rebuilding the Brander Arms. Particulars from Mr. R. B. Pratt, A.R.I.B.A., architect, 110, High-street, Elgin.

No DATE.—**Mossley.**—CLUB.—New Liberal Club. Mr. Wm. Marshall, architect, etc., 2, Dean-street, Stalybridge.

No DATE.—**Oswaldtwistle.**—SHOP, ETC.—New branch shop and cottage. Apply to Mr. Geo. Riley, architect and Surveyor, Albert-street, Oswaldtwistle.

No DATE.—**Portmadoc.**—CHURCH.—Building a new church at Borth-y-Gest. Architect, Mr. Harold Hughes, of the Diocesan Offices, Bangor.

No DATE.—**Stoneycroft.**—HOUSES.—Erection of five houses. Plans and specifications at 136, West Derby-road.

No DATE.—**Wakefield.**—GOLF-HOUSE.—Erection of a golf-house. Messrs. Watson, Son, & Ellison, architects and surveyors, Barstow-square, Wakefield.

No DATE. — **Wakefield.** — SCHOOL. — Public elementary school. Quantities, on deposit of 3*l.* 3s., from Mr. Percy Glover, Secretary, Education Department, Town Hall, Wakefield.

No DATE.—**Wednesbury.**—CLOCK TOWER.—Erection of a clock tower. Mr. E. M. Scott, Borough Engineer, Wednesbury.

No DATE. — **Woolwich.**—WAREHOUSE.—Three-story warehouse. Apply to Mr. H. Busbridge, architect, 229, Burrage-road, Plumstead.

ENGINEERING, IRON, AND STEEL.

APRIL 10.—**Aberavon.**—RETORTS.—Supply and erecting two new settings of seven retorts, etc. Particulars from Mr. A. J. Bond, Engineer and Manager, Gas Works, Aberavon.

APRIL 10.—**Risca, Mon.**—GAS MAINS.—Laying gas mains and construction of governor pits. Particulars from Mr. Guy S. Davies, Engineer, Gas Works, Risca.

APRIL 11. — **Manchester.** — TRANSFORMER. — Static transformer. Specification from Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester, on deposit of 1*l.* 1s.

APRIL 11.—**Swansea.**—WATER MAINS.—The R.D.C. invite tenders for water mains. Apply to Mr. T. T. Williams, Engineer, Council Offices, Alexandra-road, Swansea.

APRIL 14.—**Runcorn.**—RESERVOIR.—Construction of an underground reinforced-concrete reservoir. Specification, on deposit of 1*l.*, from Mr. Walter Timmins, Bridgewater Foundry, Runcorn.

APRIL 17. — **Dumfries.**—BRIDGES.—The Caledonian Railway invite tenders for renewal of underbridges. Drawings and specification from office of the Company's Engineer, Buchanan-street Station, Glasgow, on deposit of 2*l.* 2s.

APRIL 18.—**Coalville, Leics.**—PURIFIERS.—Erection of four purifiers, etc. Specifications from Mr. J. W. Eagles, Gas Engineer, Whitwick, near Leicester.

APRIL 21.—**Belfast.**—HOISTS, ETC.—Erection of overhead runways, hanging rails, hoists, at the new abattoir. Drawings seen, and specification from City Surveyor, City Hall, Belfast, on deposit of 1*l.* 1s.

APRIL 21.—**Sherborne, Dorset.**—GASHOLDER, ETC.—Supply of a gasholder and steel tank. Specifications from Mr. H. W. Cowling, Manager and Secretary, Gas Works, Sherborne.

APRIL 22.—**Basingstoke.**—WELL.—Sinking a well for water supply, in accordance with a specification prepared by the architects, Messrs. George T. Hine & H. Carter Pegg, of Westminster. Specification, etc., on deposit of 2*l.*, from Mr. H. Barber, Clerk of the Joint Asylums Visiting Committee, The Castle, Winchester.

MAY 1 — **Wringworthy.** — RESERVOIR.—Construction of a reservoir, etc. Mr. Cyril Martin, Surveyor, Port View, East Looe.

JULY 22.—**San Antonio.**—HARBOUR WORKS.—The Chilian Government invite tenders for harbour works. Particulars from Chilian Legation, Gloucester-mansions, Harrington-gardens, S.W.

JULY 22.—**Valparaiso.**—HARBOUR WORKS.—The Chilian Government invite tenders for harbour works. Particulars from Chilian Legation, Gloucester-mansions, Harrington-gardens, S.W.

FURNITURE, PAINTING, MATERIALS, etc.

APRIL 8.—**Barnstaple.**—PAINTING THE GUILDHALL AND ALBERT HALL.—Particulars from Borough Surveyor, The Strand, Barnstaple.

APRIL 8.—**Barnstaple.**—SCHOOL.—Painting the Holy Trinity Girls' School. Particulars from Mr. E. Y. Saunders, P.A.S.I., Borough Surveyor, The Strand, Barnstaple.

APRIL 8.—**Calstock.**—PAINTING.—The Plymouth, Devonport, and S.W. Railway Company invite tenders for painting at Calstock Station. Apply to Mr. A. W. Burchell, Secretary, 5, The Sanctuary, Westminster, S.W.

APRIL 10.—**Billericay.**—SHORING, ETC.—Construction of 120 lin. yds. of shoring and post and rail fence. Plan and specification with the Surveyor, Mr. R. J. W. Layland, Billericay, Essex.

APRIL 10. — **Broadstairs.** — PAINTING. — For painting the bandstand, etc. Specifications with the Surveyor, Mr. H. Hurd, C.E., Council Office, Broadstairs.

APRIL 10.—**Stalybridge.**—PAINTING, ETC.—The Committee of the Lancashire Ward Liberal Club, Stamford-street, Stalybridge, invite tenders for painting, papering, etc., of the Club. Full particulars from the Secretary.

APRIL 11.—**Wakefield.**—FLOOR.—Relaying in maple. Apply to Mr. G. F. Nurse, Hon. Secretary, Wakefield Institute of Literature, Wakefield.

APRIL 12.—**Hull.**—PAINTING.—The Corporation invite tenders for certain painting required at the West Park. Particulars from Mr. A. E. White, M.Inst.C.E., City Engineer, Town Hall, Hull.

APRIL 12.—**Liverpool.**—PAINTING, ETC.—The West Derby Union invite tenders for painting, etc., at the Workhouse. Specification with Mr. Harris P. Cleaver, Union Clerk, Union Ofices, Brougham-terrace, Liverpool.

APRIL 12.—**Woolwich.**—REPAIRS, ETC.—Repairs, painting, etc., to Public Library. Specification from Mr. J. Rush Dixon, M.Inst.C.E., Borough Engineer, Town Hall, Woolwich.

APRIL 15.—**Brotton.**—PAINTING, ETC., THE WORKMEN'S CLUB.—Plans and specifications at the Club. Secretary, Brotton House, Brotton.

APRIL 15. — **Castleton.** — PAINTING, ETC.—Decorating of the interior of the Congregational church and school. Specification from the Secretary, Mr. G. Broderick, Oaklands, Castleton, on deposit of 10s.

APRIL 15. — **Huddersfield.** — PAINTING.—For painting chapel and schools. Specifications from Mr. T. Mellor, 42, Cross Church-street, Huddersfield.

APRIL 18.—**Northwich.**—PAINTING.—For painting, etc., hospital buildings. Particulars from Mr. J. Holland, Clerk, 62, High-street, Winsford.

* APRIL 20.—**London.**—MARBLE TOPS.—The Commissioners of H.M. Works and Public Buildings invite tenders for supply of marble tops for refreshment tables for one year from May 1. See advertisement in this issue for further particulars.

APRIL 22.—**Bury St. Edmund's.**—PAINTING.—West Suffolk Standing Joint Committee invite tenders for painting at their various buildings. Specifications from Mr. A. Ainsworth Hunt, County Architect, Shire Hall, Bury St. Edmund's.

APRIL 27.—**London.**—PAINTING.—The Leyton U.D.C. invite tenders for painting at the Lea Bridge Public Library. Specification from Mr. Ernest H. Essex, A.M.Inst.C.E., Engineer and Surveyor to the Council, at the Town Hall, Leyton, E.

* APRIL 28.—**Leytonstone.**—SCHOOL FURNITURE AND FITTINGS.—The Essex Education Committee (Leyton Higher Education Committee) invite tenders for school furniture and fittings for new County High School for Girls, Forest-road, Leytonstone. See advertisement in this issue for further particulars.

No DATE.—**Grangetown.**—Painting and varnishing fronts of eight houses. 2, Gladstone-terrace, Grangetown.

No DATE.—**Huddersfield.**—PAINTING, ETC.—Interior painting, etc., at the hospital. Specification from Mr. D. J. Bailey, Clerk to the Committee, Yorkshire Bank-chambers, Huddersfield.

No DATE. — **Ratcliffe.** — PAINTING. — Outside painting of mill, warehouse, etc. For particulars apply to Messrs. Wormalds & Walker, Ltd., Dewsbury Mills, Dewsbury.

ROADS, SANITARY, AND WATER WORKS.

APRIL 8. — **Chesterton.** — GRANITE. — Broken granite. Forms of tender from Surveyor, Mr. J. Dunn, Brunswick House, Cambridge.

APRIL 10.—**Blackrod, Lancs.**—ROADWORK.—Apply to the Clerk, Urban District Council.

APRIL 10.—**Brighouse.**—REPAVING WORK.—Apply Mr. H. Rothwell, Town Clerk to the Corporation.

APRIL 10.—**Leeds.**—STREETS.—Paving of streets. Quantities from Highways Office, 155, Kirkstall-road, Leeds

APRIL 10.—**Normanton.**—MATERIALS.—Supply of road materials. Mr. J. W. Martin, Clerk to the Urban District Council.

APRIL 10.—**St. Mellons, Wales.**—SEWERS.—Providing and laying sewers. Quantities, upon deposit of 2*l.* 2s., from Mr. A. H. Rees, Clerk, Council Offices, Queen's-hill, Newport, Mon.

APRIL 10.—**Sculcoats.**—SEWER.—Construction of a brick sewer. Bills of quantities from Mr. William H. Wellsted, Waterloo-chambers, Hull, on deposit of 1*l.* 1s.

APRIL 10.—**Sheffield.**—BLOCKS.—Supply and delivery of 500,000 redwood blocks. Forms of tender from Mr. W. J. Hadfield, Surveyor of Highways, Town Hall, Sheffield, on deposit of 1*l.* 1s.

APRIL 10.—**Stanley, Durham.**—STREET WORKS.—Plans and specifications with Mr. Jos. Routledge, Surveyor to the Council, Stanley.

APRIL 11.—**Haverhill.**—GRANITE.—Supply of broken granite. Apply Mr. W. H. Eley, Surveyor to the Urban District Council.

APRIL 11. — **London.** — STREET WORKS.—The Edmonton U.D.C. invite tenders for making-up private streets. Forms from Council's Engineer and Surveyor, Mr. Cuthbert Brown, A.M.Inst.C.E., Town Hall, Lower Edmonton, on deposit of 2*l.* 2s.

APRIL 11.—**Southampton.**—STREETS.—Executing private street works. Plans, etc., seen, and quantities from Borough Engineer's Office, on deposit of 1*l.* 1s.

APRIL 12. — **Abertridwr.**—STREETS.—Improvements of street. Particulars from Mr. John H. Phillips, F.R.I.B.A., 7, Pembroke-terrace, Cardiff.

APRIL 12.—**Aldeburgh.**—STREETS.—Making-up streets. Plans seen, and quantities from Mr. John C. Gordon, Borough Surveyor, Town Hall, Aldeburgh, on deposit of 2*l.* 2s.

APRIL 12.—**Bury.**—PIPES, ETC.—Surface-water drain, with gullies and connexions. Particulars from Mr. E. T. Morland Johnson, Bank of England-chambers, Tib-lane, Manchester.

* APRIL 12.—**London, W.C.**—PUBLIC URINAL.—The Holborn B.C. invite tenders for a four-stall urinal in Mount Pleasant. See advertisement in this issue for further particulars.

APRIL 12.—**Radstock.**—MATERIALS.—Supply of road materials. Mr. G. H. Gibson, Surveyor to the Urban District Council.

APRIL 12.—**Ryton.**—STREET WORKS.—Construction of street works. Plans seen, and quantities, on deposit of 10s., from Mr. John P. Dalton, Surveyor to the Council, Ryton.

APRIL 12.—**Scarborough.**—PAVING.—Creosoted redwood paving. The drawings seen, and quantities from Mr. Harry W. Smith, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Scarborough.

APRIL 12.—**Uxbridge.**—MATERIALS.—Supply of granite, etc. Forms of tender from Mr. John Wm. Harrison, Engineer and Surveyor, Corn Exchange, Uxbridge.

APRIL 13.—**Stocksbridge.**—MATERIALS.—Supply of road materials. Forms from Mr. J. Marsden, Clerk to the Council, Council Offices, Stocksbridge, Sheffield.

APRIL 14.—**Baildon, Yorks.**—MATERIALS.—Supply of broken granite, etc. Mr. J. Bentley, Clerk to the U.D.C.

APRIL 15.—**Ewenny, Wales.**—WATER WORKS.—For supplying, laying, etc., of steel tube main, etc. Quantities from the Engineer, Mr. J. S. Davies, Forest Dean, Ackland-road, Bridgend, on deposit of 1*l.* 1s.

APRIL 17.—**Budleigh Salterton, Devon.**—SEWERAGE.—Construction of tunnel sewer. Quantities from Messrs. Strachan & Weekes, civil engineers, 9, Victoria-street, Westminster, S.W., on deposit of 3*l.* 3s.

APRIL 19.—**Accrington.**—SEWERAGE.—Extension of the Coppy Clough Sewage Works. Plans seen, and quantities, on deposit of 2*l.* 2s., from Mr. William J. Newton, Assoc.M.Inst.C.E., Engineer to the Board, Town Hall, Accrington.

APRIL 19.—**Faringdon.**—WATER SUPPLY.—Providing and laying cast-iron mains. Particulars from Mr. H. Glynn Warne, of London-street, Faringdon, on deposit of 2*l.* 2s.

APRIL 19.—**Greetland.**—SEWERS.—Construction of cast-iron and earthenware sewers. Drawings, etc., seen, and quantities from Messrs. Clement Williams & Sons, architects and surveyors, Post Office-buildings, Commercial-street, Halifax.

APRIL 20.—**Guildford.**—SEWER.—Construction of stoneware pipe sewer. Plans seen, and specification from Mr. C. G. Mason, Assoc.M.Inst.C.E., the Borough Engineer and Surveyor, Tuns Gate.

APRIL 20. — **Stock.** — ROADS.—Paving streets in the borough. Plans, etc., with Mr. John Atkinson, A.M.Inst.C.E., Borough Surveyor, Town Hall, Stockport.

Public Appointment.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*CLERK OF WORKS	Stockton-on-Tees Edu. Com.	3l. 3s. per week	April 11

Auction Sales.

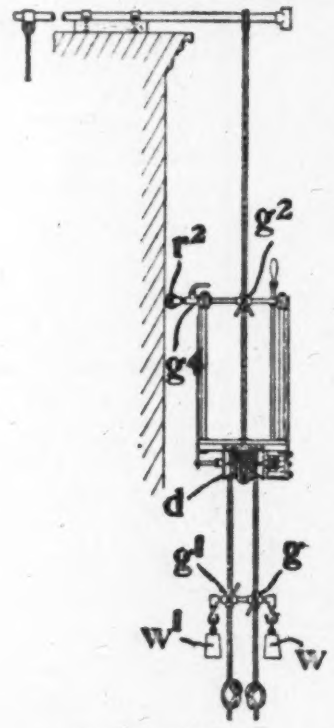
Nature and Place of Sale.	By whom Offered.	Date of Sale.
*CONTRACTOR'S PLANT, MACHINERY, Etc., FINCHLEY-RD., N.—On the Premises	Linnett, Lane, & Bettridge	April 20
*TIMBER & BUILDERS' MERCHANT'S BUSINESS, NEW SOUTHGATE, N.—At the Mart	Fuller, Horsey, Sons, & Cassell	April 25
*TIMBER, PLANT, AND MACHINERY, EAST CROYDON—On the Premises	Hobson, Richards, & Co.	April 26
*FREEHOLD MARINE PROPERTY, SEAFORD, SUSSEX—At the Mart	Farebrother, Ellis, Egerton, Breach, Galsworthy, & Co.	May 17

PATENTS—*Continued from page 441.*

pillars. All the blocks are grooved to receive slabs *c*, and the column blocks are locked together by running grouting into a central aperture *b3*, whence is spreads into enlargements *b4* at the joints. A lining of paper may be fitted in the centre aperture to facilitate separation. The pillars forming the stiles of the door and window frames may be similarly constructed.

26,891 of 1909.—Thomas Moore: Staging.

This relates to builders' cradles suspended and travelling on ropes which are attached to the building and wound on drums operated by worm gearing. Rope-grips *g2* secure the



26,891 of 1909.

cradle; rollers *r2* are adjustable in screw-grips *g4*; and the paid-off portions of the ropes from the drums *d* are kept taut by weights *w*, *w1* attached to hooks on rope-grips *g*, *g1*. The rope-grips are provided with gripping-plates actuated by screwed handles.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

March 20.—By ROBT. NEWMAN.

Harlington, Middx.—Grays and 1 a. 1 r. 1 p., *f.*	£895
Bedfont, Middx.—Two cottages, *f.*	275
Chiswick.—3, Caithness-rd., *f.*, e.r. 45*l.*	565

By WILKINSON, SON, & WELCH.

Brighton, Sussex.—37, Vernon-ter., *f.*, y.r. 130*l.*	1,500
Hove, Sussex.—37 and 38, Brunswick-rd., u.t. 42 yrs., g.r. 30*l.*	365

March 21.—By WARNER, SHEPPARD, & WADE.

Newbold Verdon, Leics.—Pool House Farm, 25 a. 3 r. 15 p., *f.*	1,360
Osbaston, Leics.—Osbaston House Farm and Enclosures, 157 a. 2 r. 12 p., *f.*	4,970

By GIDDY & GIDDY.

Battersea.—61 to 70, Prince of Wales-mansions, u.t. 66 yrs., g.r. 275*l.*, gross rental 680*l.*	360

By H. HOOKEY & Co.

Clapham.—Clapham-rd., Star Electric Theatre, lease for 20 yrs. at 110*l.*, with possession	100

By REYNOLDS & EASON.

Spitalfields.—20, Brushfield-st. (s.), *f.*, y.r. 30*l.*	510

By MADDISON, MILES, & MADDISON.

Great Yarmouth.—Two houses, Row 2, *f.*	£170

March 22.—By ERNEST S. BEARD & DANIEL.

Colchester, Essex.—30, High-st. (s.), *f.*, y.r. 122*l.*	1,900
Plough Corner (s.), *f.*, p.	1,725
Sussex-rd., The Chalet, *f.*	900
77 and 78, East-hill, *f.*, y.r. 63*l.*	725
42, Crouch-st., *f.*, y.r. 50*l.*	1,000

By BAXTER, PAYNE, & LEPPER.

Catford.—321, 321A, 321B, and 321C, Stanstead-rd. (s.), *f.*, y.r. 230*l.*	2,200
Beckenham.—19, Westfield-rd., u.t. 91 yrs., g.r. 10*l.*, p.	420
Elmers End-rd., The Laurels, *f.*, y.r. 35*l.*	230

By BISLEY & SONS.

Bermondsey.—1 to 7, Union-place, *f.*, w.r. 157*l.* 6*s.*	1,210
309, Southwark Park-rd. (s.), *f.*, w.r. 35*l.* 2*s.*	300
373, Southwark Park-rd. (s.), *f.*, w.r. 31*l.* 4*s.*	270
13 to 16, Cadbury-rd., u.t. 54¼ yrs., g.r. 18*l.*, w.r. 140*l.* 8*s.*	835
Rotherhithe.—5 and 7, Westlake-rd., u.t. 45 yrs., g.r. 1*l.* 10*s.*, w.r. 62*l.* 8*s.*	430
130 to 140 (even), Rotherhithe New-rd. and l.g.r. 4*l.*, u.t. 42 yrs., g.r. 24*l.*, w.r. 188*l.* 10*s.*	1,130

By ALLAN BOOTH & DAMPNEY.

Holloway.—330, Camden-rd., u.t. 47 yrs., g.r. 12*l.*, p.	500
36, Penn-rd. Villas, u.t. 43 yrs., g.r. 9*l.* 10*s.*, p.	350
Barnsbury.—11 and 13, Gainford-st., u.t. 11 yrs., g.r. 6*l.*, w.r. 78*l.*	170

By JENKINSON, BRINSLEY, & JENKINSON.

Edgware-road. — No. 159, u.t. 9½ yrs., g.r. 10*l.* 10*s.*, y.r. 120*l.*	540
Chiswick.—325, Chiswick High-rd., u.t. 57 yrs., g.r. 8*l.*, y.r. 45*l.*	400

By ROBINSON & PARRATT.

Balham.—74, Ritherdon-rd., u.t. 79 yrs., g.r. 9*l.* 15*s.*, p.	440
8, Dornton-rd., u.t. 84 yrs., g.r. 6*l.* 10*s.*, p.	240

By WALTER WINDRUM.

Poplar.—7, Cotton-st. (s.), *f.*, y.r. 42*l.*	500
8 and 9, Cotton-st., *f.*, w.r. 62*l.* 8*s.*	400
44, 46, 48, 54, 56, and 58, Upper North-st., u.t. 18 yrs., g.r. 16*l.* 2*s.*, w.r. 167*l.* 14*s.*	345
31, St. Leonard-st. (s.), *f.*, y.r. 32*l.*	265
St. George's East.—2 and 4, Umberstone-st. (s.), *f.*, w.r. 53*l.* 19*s.*	300
Stratford.—35 to 43, Martin-st., u.t. 47 yrs., g.r. 12*l.*, w.r. 139*l.* 2*s.*	540

By BURTENSHAW & SON.

Hailsham, Sussex.—Western-rd., Maythorne, *f.*	1,100
17, High-st., *f.*	490
10 and 12, London-rd., *f.*	505

March 23.—By BOX, MACHIN, & GAPP.

Cliffe, Kent.—1 to 5, St. Georges-ter.; 1 to 5, St. Georges Villas, u.t. 76 yrs., g.r. 78*l.* 5*s.*, gross r. 227*l.*	700
Hackney.—4 and 5, Blackstone-rd., u.t. 36¼ yrs., g.r. 10*l.*, w.r. 67*l.* 12*s.*	260

By GREEN & SON.

Streatham.—138, Wellfield-rd. (s.), u.t. 52¼ yrs., g.r. 6*l.*, y.r. 45*l.*	400
92, Wellfield-rd., u.t. 52¼ yrs., g.r. 4*l.*, w.r. 36*l.* 8*s.*	215

By MARK GILBERT & CO.

Enfield.—503, Hertford-rd. (s.), *f.*, y.r. 30*l.*	350

By HOLLIDAY & STRANGER.

Streatham.—86, Barrow-rd., u.t. 90 yrs., g.r. 9*l.* 5*s.*, e.r. 50*l.*	455

By HUGHES, SIMS, & BUNN.

Barnsbury.—24, Sheen-gr., u.t. 25 yrs., g.r. 6*l.*, e.r. 36*l.*	110

By MAY & ROWDEN.

Islington.—3 and 9, Duncan-ter., *f.*, y.r. 110*l.*	1,100

By C. C. & T. MOORE.

East Ham.—86, Milton-av., *f.*, p.	385
Limehouse.—32, 34, and 36, Huddart-st., u.t. 62½ yrs., g.r. 15*l.*, w.r. 120*l.* 18*s.*	605
29, Walker-st., u.t. 60¼ yrs., g.r. 3*l.* 10*s.*, w.r. 35*l.* 2*s.*	175
Bow.—109, 111, and 113, Morville-st., u.t. 37 yrs., g.r. 10*l.* 10*s.*, w.r. 93*l.* 12*s.*	380
Bethnal Green.—1 to 11 (odd), Lansdell-pl., *f.*, w.r. 100*l.* 2*s.*	430
Bow.—26 and 28, Chiltern-rd., u.t. 51½ yrs., g.r. 7*l.*, w.r. 70*l.* 4*s.*	415
Leytonstone.—44, Matcham-rd., u.t. 73 yrs., g.r. 3*l.*, w.r. 24*l.* 14*s.*	125
Limehouse.—45, Farrance-st., *f.*, e.r. 52*l.*	250

By NEWBON & SHEPHARDS.

Islington.—Sherborne-st., l.g. rents 54*l.*, u.t. 31 yrs., g.r. 1*s.*	640
Halliford-st., l.g. rents 72*l.*, u.t. 29 and 31 yrs., g.r. 13*s.*	830
Pentonville.—Warren-st., l.g. rents 15*l.* 15*s.*, u.t. 30 yrs., g.r. nil	170
Peckham.—Vivian-rd., l.g. rents 60*l.*, u.t. 43 yrs., g.r. 5*l.*	790
Shoreditch.—47, Hawar-st. (s.), u.t. 37 yrs., g.r. 2*l.*, y.r. 36*l.*	£180
Islington.—3 to 9 (odd), Rothery-st., *f.*, w.r. 83*l.* 16*s.*	385
9, 9A, 10, 10A, and 11, Bath-place, *f.*, w.r. 98*l.* 16*s.*	290
Highbury.—58, Canning-rd. and 99, Mountgrove-rd., *f.*	400
Hornsey.—60 to 74 (even), Campsbourne-rd., u.t. 56 yrs., g.r. 67*l.* 4*s.*, w.r. 228*l.* 16*s.*	135

By STIMSON & SONS.

West Norwood.—20, Chestnut-rd., u.t. 87 yrs., g.r. 10*l.* 9*s.* 5*d.*, y.r. 50*l.*	330
56, Chestnut-rd., u.t. 89 yrs., g.r. 7*l.* 15*s.*, y.r. 48*l.*	330
Bermondsey.—11 to 18, New-pl., u.t. 30¼ and 23 yrs., g.r. 23*l.*, w.r. 208*l.*	750
New Cross.—15 and 17, Arbuthnot-rd., u.t. 48 yrs., g.r. 10*l.* 10*s.*, y.r. 64*l.*	320
Peckham.—27, Philip-rd., u.t. 40 yrs., g.r. 5*l.*, y.r. 28*l.* 16*s.*	145
Battersea.—6 and 8, Mundella-rd., u.t. 61 yrs., g.r. 10*l.*, w.r. 52*l.*	285
8, 10, 12, and 28, Sheepcote-la., *f.*, w.r. 108*l.*	400
Kennington.—31, Lower Kennington-la. (s.), *f.*, y.r. 36*l.*	300
Southwark.—33, Great Suffolk-st. (s.), *f.*, y.r. 43*l.*	375
3, Colnbrook-st., u.t. 17¼ yrs., g.r. 6*l.*, y.r. 30*l.*	100
Tottenham.—30, 52, and 54, Blackboy-la., u.t. 67 yrs., g.r. 16*l.*, w.r. 89*l.* 14*s.*	370

By GRIMLEY & SON.

Harborne, Staffs.—147, 149, and 151, Metchley-la., u.t. 48 yrs., g.r. 5*l.*, w.r. 58*l.* 10*s.*	460
Balsall Heath, Worcs.—114 and 115, Vincent-st., *f.*, w.r. 37*l.* 14*s.*	370
63 to 66, Wynn-st., u.t. 37 yrs., g.r. 5*l.* 15*s.*, w.r. 83*l.* 4*s.*	380
Saltley, Warwick.—80 to 94 (even), Reginald-rd., u.t. 80 yrs., g.r. 16*l.* 5*s.* 6*d.*, w.r. 135*l.* 4*s.*	960
Five Ways, Staffs.—9, Ladywood-rd. and Ladywood-place, u.t. 18 yrs., g.r. 15*l.* 3*s.*, w.r. 171*l.* 7*s.*	735
4, 5, and 6, Rawlins-st., u.t. 32 yrs., g.r. 12*l.*, w.r. 101*l.*	425

By WHEELER & SON.

Sudbury, Suffolk.—Great Eastern Hotel, *f.*	1,125

By BATCHELAR & SON.

Caterham, Surrey.—70 to 84 (even), Beechwood-rd., *f.*, w.r. 71*l.* 10*s.*	510
172 and 174, Croydon-rd., *f.*, y.r. 51*l.*	520
Croydon, Surrey.—6, St. James-rd. (s.), *f.*, w.r. 20*l.* 16*s.*	200

March 24.—By J. C. PLATT.

Hammersmith.—34, Bridge-rd., u.t. 28 yrs., g.r. 5*l.* 13*s.* 4*d.*, p.	180

By WM. CLARKSON.

Stratford.—14, Hatfield-rd. (s.), u.t. 49 yrs., g.r. 3*l.*, y.r. 32*l.*	180

By FURBER.

Gray's Inn-road.—No. 338 (s.), *f.*, y.r. 50*l.*	405

By MARK LIELL & SON.

Stoke Newington.—2 and 3, Wolsey-rd., u.t. 39 yrs., g.r. 10*l.* 10*s.*, y.r. 68*l.*	410

March 25.—By POOLER & DAVIES.

Gnosall, Staffs.—Moore End Farm, 83 a. 0 r. 11 p., c	2,585
The Willey and 11 a. 3 r. 7 p., *f.*	650

March 27.—By WM. HOUGHTON.

Covent Garden.—8, Russell-st. (s.), *f.*, y.r. 200*l.*	5,500
City.—50, Bishopsgate, beneficial lease for 7 yrs. at 250*l.* p.a., with goodwill	290

By TOWERS, ELLIS, & Co.

Maida Vale.—10, Randolph-mews, u.t. 39 yrs., g.r. 3*l.* 10*s.*, p.	105

By T. B. WESTACOTT & SONS.

Harlesden.—Sellons-av., l.g. rents 36*l.*, u.t. 992 yrs., g.r. nil	710
30, 43, and 53, Sellons-av., u.t. 990 yrs., g.r. 15*l.*, y. and e.r. 121*l.*	1,305
Finchley.—Durham-rd., f.g. rents, reversion in 70 yrs.	2,070
Pattison-rd., f.g. rents 28*l.*, reversion in 93 yrs.	630
Beaconsfield, Bucks.—Station-parade, f.g. rents 27*l.*, reversion in 95 yrs.	380
Barnsbury.—Sheringham-rd., l.g.r. 24*l.*, u.t. 32¼ yrs., g.r. 6*d.*	670
	430
	305

***Contractions used in these lists.*—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beerhouse; p.h. for public-house; o. for offices; s. for shops; ct. for court.**

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1000 Alongside, in River.	£ s. d.
Best Stocks	1 13 0
Picked Stocks for Facings	2 10 0

Per 1000, Delivered at Railway Depôt.

	£ s. d.		£ s. d.
Flettons	1 9 0	Double Headers	13 7 6
Best Fareham Red	3 12 0	One Side and two Ends	17 7 6
		Two Sides and one End	18 7 6
Best Red Pressed Ruabon Facing	5 0 0	Splays & Squints	15 17 6
Best Blue Pressed Staffordshire	3 15 0	Best Dipped Salt Glzd. Str'tch'rs	10 17 6
Do. Bullnose	4 0 0	Headers	10 7 6
Best Stourbridge Fire Bricks	3 14 0	Quoins, Bullnose, and Flats	14 7 6
GLAZED BRICKS.		D'ble Stretchers	16 7 6
Best White and Ivory Glazed Stretchers	10 17 6	Double Headers	13 7 6
		One Side and two Ends	17 7 6
Headers	10 7 6	Two Sides and one End	18 7 6
Quoins, Bullnose, and Flats	14 7 6	Splays & Squints	15 17 6
D'ble Stretchers	16 7 6		

Second Quality White and Dipped Salt Glazed, £1 5s. per 1000 less than best.

	s. d.	
Thames and Pit Sand	6 9	per yard, delivered.
Thames Ballast	5 3	" "
Best Portland Cement	29 0	per ton, "
Best Ground Blue Lias Lime	19 0	" "

NOTE—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 11s. 6d. per yard delivered.
Stourbridge Fireclay in sacks 27s. 0d. per ton at rly dpt.

STONE.

Per Ft. Cube.

	s. d.
BATH STONE—delivered on road waggons, Paddington Depôt	1 6½
Do. do. delivered on road waggons, Nine Elms Depôt	1 8½

PORTLAND STONE (20 ft. average)—

Brown Whitbed, delivered on road waggons, Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 1
White Basebed, delivered on road waggons Paddington Depôt, Nine Elms Depôt, or Pimlico Wharf	2 2½

Per Ft. Cube, delivered at Railway Depôt.

	s. d.		s. d.
Ancaster in blocks	1 10	Closeburn Red Freestone	2 0
Beer in blocks	1 6	Red Mansfield Freestone	2 4
Greenshill in blocks	1 10	Talacre & Gwespyr Stone	2 8
Darley Dale in blocks	2 4		
Red Corsehill in blocks	2 3		

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depôt.

Scappled random blocks	2 10

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3
6 in. rubbed two sides ditto, ditto	2 6
3 in. sawn two sides slabs (random sizes)	0 11½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 7½
1½ in. to 2 in. ditto, ditto	0 6

HARD YORK—

Per Ft. Cube, Delivered at Railway Depôt.

Scappled random blocks	3 0

Per Ft. Super., Delivered at Railway Depôt.

6 in. sawn two sides landing to sizes (under 40 ft. super.)	2 8
6 in. rubbed two sides ditto	3 0
3 in. sawn two sides slabs (random sizes)	1 2
2 in. self-faced random flags	0 5

SLATES.

Per 1000 of 1200 at Railway Depôt.

In. In.	£ s. d.	In. In.	£ s. d.
20×10 best blue Bangor	13 2 6	20×10 best Eur'ka unfading green	15 17 6
20×12 ditto	13 17 6	20×12 ditto	18 7 6
20×10 1st quality ditto	13 0 0	18×10 ditto	13 5 0
20×12 ditto	13 15 0	16×8 ditto	10 5 0
16×8 ditto	7 5 0	20×10 permanent green	11 12 6
22×10 best blue Portmadoc	12 12 6	18×10 ditto	9 12 6
16×8 ditto	6 12 6	16×8 ditto	6 12 6

TILES.

At Railway Depôt.

	s. d.		s. d.
Best plain red roofing (per 1000)	42 0	Best "Hartshill" brand, plain sandfaced (per 1000)	50 0
Hip and Valley (per doz.)	7	Do. pressed (per 1000)	47 6
Best Broseley (per 1000)	50 0	Do. Ornamental (per 1000)	50 0
Do. Ornamental (per 1000)	52 6	Hip (per doz.)	4 0
Hip and Valley (per doz.)	4 0	Valley (per doz.)	3 6
Best Ruabon red, brown, or brindled (Edw'ds) (per 1000)	57 6	Staffords. (Hanley) Reds or Brindled (per 1000)	42 6
Do. Ornamental (per 1000)	60 0	Hand-made sandfaced (per 1000)	45 0
Hip (per doz.)	4 0	Hip (per doz.)	4 0
Valley (per doz.)	3 0	Valley (per doz.)	3 6

WOOD.

BUILDING WOOD.	At per standard. £ s. d.		£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14 0 0	...	15 10 0
Deals: best 3 by 9	13 10 0	...	14 10 0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11 10 0	...	12 10 0
Battens: best 2½ by 6 and 3 by 6	0 10 0		less than 7 in. and 8 in.
Deals: seconds	1 0 0		less than best.
Battens: seconds	0 10 0	"	"
2 in. by in. and 2 in. by 6 in.	9 10 0	...	10 10 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	...	10 0 0
Foreign Sawn Boards— 1 in. and 1½ in. by 7 in.	0 10 0		more than battens.
¼ in.	1 0 0		"
Fir timber: best middling Danzig or Memel (average specification)	At per load of 50 ft. 5 0 0	...	5 10 0
Seconds	4 10 0	...	5 0 0
Small timber (8 in. to 10 in.)	3 17 6	...	4 0 0
Small timber (6 in. to 8 in.)	3 5 0	...	3 10 0
Swedish balks	2 12 6	...	3 0 0
Pitch-pine timber (30 ft. average)	4 10 0	...	5 5 0

JOINERS' WOOD.	At per standard. £ s. d.		£ s. d.
White Sea: first yellow deals, 3 in. by 11 in.	24 10 0	...	25 10 0
3 in. by 9 in.	22 10 0	...	23 10 0
Battens, 2½ in. and 3 in. by 7 in.	17 0 0	...	18 0 0
Second yellow deals, 3in. by 11in.	19 0 0	...	20 0 0
" " 3 in. by 9 in.	18 0 0	...	19 10 0
Battens, 2½ in. and 3in. by 7 in.	14 0 0	...	15 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	14 0 0	...	15 0 0
Battens, 2½ in. and 3 in. by 7 in.	11 10 0	...	12 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	21 10 0	...	22 10 0
Do. 3 in. by 9 in.	18 10 0	...	19 10 0
Battens	14 0 0	...	15 0 0
Second yellow deals, 3 in. by 11 in	16 10 0	...	17 10 0
Do. 3 in. by 9 in.	15 0 0	...	16 0 0
Battens	11 10 0	...	12 10 0
Third yellow deals, 3in. by 11 in.	13 10 0	...	14 10 0
Do. 3 in. by 9 in.	13 0 0	...	14 0 0
Battens	10 10 0	...	11 0 0
White Sea and Petersburg— First white deals, 3 in. by 11 in.	15 0 0	...	16 0 0
" " 3 in. by 9 in.	14 0 0	...	14 10 0
Battens	11 10 0	...	12 10 0
Second white deals, 3in. by 11in.	14 0 0	...	15 0 0
" " 3 in. by 9 in.	13 0 0	...	14 0 0
Battens	10 10 0	...	11 0 0
Pitch-pine: deals	19 0 0	...	21 0 0
Under 2 in. thick extra	0 10 0	...	1 0 0
Yellow Pine—First, regular sizes	44 0 0		upwards.
Oddments	32 0 0		"
Seconds, regular sizes	33 0 0		"
Oddments	28 0 0		"
Kauri Pine—Planks per ft. cube.	0 3 6	...	0 5 0
Danzig and Stettin Oak Logs— Large, per ft. cube	0 3 0	...	0 3 9
Small " "	0 2 6	...	0 2 6
Wainscot Oak Logs, per ft. cube	0 5 6	...	0 6 0
Dry Wainscot Oak, per ft. sup. as inch	0 0 8½	...	0 0 9½
¼ in. do. do.	0 0 7	...	—
Dry Mahogany—Honduras, Tabasco, per ft. super. as inch	0 0 10	...	0 1 1
Selected, Figury, per ft. super. as inch	0 1 6	...	0 2 6
Dry Walnut, American, per ft. super. as inch	0 0 10	...	0 1 0
Teak, per load	18 0 0	...	22 0 0
American Whitewood planks, per ft. cube	0 4 0	...	0 5 0

Prepared Flooring, etc.—

	Per square. £ s. d.		£ s. d.
1 in. by 7 in. yellow, planed and shot	0 13 6	...	0 17 0
1 in. by 7 in. yellow, planed and matched	0 14 0	...	0 18 0
1¼ in. by 7 in. yellow, planed and matched	0 16 0	...	1 0 0
1 in. by 7 in. white, planed and shot	0 12 0	...	0 14 6
1 in. by 7 in. white, planed and matched	0 12 6	...	0 15 0
1¼ in. by 7 in. white, planed and matched	0 15 0	...	0 16 6
¼ in. by 7 in. yellow, matched and beaded or V-jointed brds.	0 11 0	...	0 13 6
1 in. by 7 in. " "	0 14 0	...	0 18 6
¼ in. by 7 in. white " "	0 10 0	...	0 11 0
1 in. by 7 in. " "	0 12 9	...	0 15 0

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £ s. d.		£ s. d.
Rolled Steel Joists, ordinary sections	7 0 0	...	7 10 0
Compound Girders, ordinary sections	9 0 0	...	10 0 0
Steel Compound Stanchions	11 0 0	...	12 0 0
Angles, Tees, and Channels, ordinary sections	9 0 0	...	10 0 0
Flitch Plates	9 0 0	...	9 10 0
Cast Iron Columns & Stanchions, including ordinary patterns	7 10 0	...	8 10 0

METALS.

	Per ton, in London. £ s. d.		£ s. d.
IRON— Common Bars	8 10 0	...	9 0 0
Staffordshire Crown Bars, good merchant quality	8 15 0	...	9 5 0
Staffordshire "Marked Bars"	10 10 0	...	—
Mild Steel Bars	8 15 0	...	9 5 0
Hoop Iron, basis price	9 5 0	...	9 10 0
" " Galvanised	17 0 0	...	—
(*And upwards, according to size and gauge.)			
Sheet Iron Black— Ordinary sizes to 20 g.	9 15 0	...	—
" " 24 g.	10 15 0	...	—
" " 26 g.	12 5 0	...	—
Sheet Iron, Galvanised, flat, ordinary quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	—
Ordinary sizes to 22 g. and 24 g.	15 10 0	...	—
" " 26 g.	16 10 0	...	—

METALS (*continued*).

IRON (*continued*)—	Per ton, in London. £ s. d.		£ s. d.
Sheet Iron, Galvanised, flat, best quality— Ordinary sizes to 20 g.	18 0 0	...	—
" " 22 g. and 24 g.	18 10 0	...	—
" " 26 g.	20 0 0	...	—
Galvanised Corrugated Sheets— Ordinary sizes, 6ft. to 8ft. 20 g.	14 10 0	...	—
" " 22 g. and 24 g.	14 15 0	...	—
" " 26 g.	16 5 0	...	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	12 0 0	...	—
Best Soft Steel Sheets, 2 g. & 24 g.	13 0 0	...	—
" " " 26 g.	15 0 0	...	—
Cut Nails, 3 in. to 6 in.	10 10 0	...	11 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.	Per ton, in London. £ s. d.		£ s. d.
LEAD—Sheet, English, 4lb. and up	16 7 6	...	—
Pipe in coils	16 17 6	...	—
Soil pipe	19 17 6	...	—
Compo pipe	19 17 6	...	—
ZINC—Sheet—	In casks of 10 cwt.		
Vielle Montagne	31 10 0	...	—
Silesian	31 5 0	...	—

Zinc, in bundles, 1s. per cwt. extra.

COPPER— Strong Sheet	per lb.	0 1 0	... —
Thin	"	0 1 1	... —
Copper nails	"	0 0 10	... —
Copper wire	"	0 0 10	... —
BRASS— Strong Sheet	"	0 0 11	... —
Thin	"	0 1 0	... —
TIN—English Ingots	"	0 1 9	... —
SOLDER—Plumbers'	"	0 0 8½	... —
Tinmen's	"	0 0 11	... —
Blowpipe	"	0 1 2	... —

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per Ft., Delivered.

15 oz. thirds	2½d.	26 oz. fourths	3½d.
" fourths	1½d.	32 oz. thirds	5½d.
21 oz. thirds	3½d.	" fourths	4½d.
" fourths	2½d.	Fluted Sheet, 15 oz.	3½d.
23 oz. thirds	4½d.	" 21 oz.	4½d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

Per Ft., Delivered.

⅛ Hartley's	2d.	Figured Rolled, Oxford Rolled, Oceanic, Arctic, Muffled, and Rolled Cathedral, white	3½d.
⅜ "	2½d.		
¼ "	2½d.	Ditto, tinted	5d.

OILS, &c.		£ s. d.
Raw Linseed Oil in pipes	per gallon	0 4 1
" " " in barrels	"	0 4 2
" " " in drums	"	0 4 4
Boiled " " in barrels	"	0 4 4
" " " in drums	"	0 4 7
Turpentine in barrels	"	0 5 11
" in drums	"	0 6 1
Genuine, Ground English White Lead, per ton		21 10 0
Red Lead, Dry	"	20 0 0
Best Linseed Oil Putty	per cwt.	0 11 6
Stockholm Tar	per barrel	1 12 0

VARNISHES, &c.	Per gallon. £ s. d.
Fine Pale Oak Varnish	0 8 0
Pale Copal Oak	0 10 6
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 0
Superfine Hard-drying Oak, for seats of Churches	0 14 6
Fine Elastic Carriage	0 12 0
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 0
Extra Pale French Oil	1 1 0
Eggshell Flating Varnish	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 6
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 16 0
Knotting	0 10 9
French and Brush Polish	0 10 6

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We cannot undertake to return rejected communications; and the Editor cannot be responsible for drawings, photographs, manuscripts, or other documents, or for models or samples sent to or left at this office, unless he has specially asked for them.

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Any commission to a contributor to write an article, or to execute or lend a drawing for publication, is given subject to the approval of the article or drawing, when received, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

N.B.—Illustrations of the First Premiated Design in any important architectural competition will always be accepted for publication by the Editor, whether they have been formally asked for or not.

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TENDERS.

GOOD FRIDAY WEEK.—In consequence of the Easter holidays, we go to press a day earlier than usual next week, the *Builder* being published on Thursday. All communications must reach the Editor by first post on Wednesday morning, except Tenders, which may be received up to 9 a.m.

FOWLMERE.—For cemetery chapel. Mr. Sidney French, architect, Llandaff-chambers, Regent-street, C..mbridge :—

Willmott & Sons	£335 0 0	G. W. Heath	£289 10 0
Hinkins & Sons..	320 17 1	W. H. Taylor	287 10 5
G. B. Mortlock..	313 16 0	A. Chuck	281 0 0
E. C. Melton	302 8 2	J. Brignell	280 0 0
Bell & Sons	300 0 0	Gates & Son	274 10 0
Bennett & Sons..	296 0 0	Jacklin & Co.	274 0 0
Gimson & Co.	293 0 0	Clark & Sons	274 0 0
H. Booke	292 0 0	C. J. Jude, Harston, Cambs.*	262 4 0
Ward & Sons	290 4 0		

GILFACH.—For erection of a caretaker's house, etc. Mr. Jas. P. Jones, F.I.S.E., Council Offices, Hengoed, nr. Cardiff :—

D. Williams	£586 18 0	J. Cox	£403 0 0
F. & R. Lewis	475 16 8	E. J. Davies & Co.	399 10 0
J. Bambury	475 0 0	W. H. Lee, Hengoed*	389 15 0
R. Jones	453 0 0		
T. Vodden	415 0 0		

HARROW-ON-THE-HILL.—For conveniences, etc., for the Urban District Council. Mr. J. Percy Bennetts, Engineer and Surveyor :—
J. Simmons, Harrow* £750

HARROW-ON-THE-HILL.—For laying out of the Harrow Recreation Ground, at the Harrow Recreation Ground, for the Urban District Council :—
A. Thompson, Whetstone* £1,860

LEIGH-ON-SEA.—For the erection of public offices and fire station, for the Urban District Council. Mr. John W. Liversedge, A.M.Inst.C.E., Engineer and Surveyor. Quantities by Mr. Geo. T. G. Wright, F.S.I., 3, Great Winchester-street, E.C. :—
F. Davey, 40, London-road, Southend* ..... £3,408 Public Office. 1,008 Fire Station.
£4,416
[Seventeen firms tendered.]

LONDON.—For making about 1,130 ft. of roads, forming part of King George-avenue, Connaught-approach, and Prince Edward-crescent, on the Connaught Garden Estate, Custom House, E. Messrs. Belfrage & Saville, architects and surveyors, 27, Chancery-lane, W.C. :—

W. Moss & Son, Ltd.	£1,361 0 0
S. Kavanagh & Co.	1,330 16 6
O. T. Gibbons	1,131 0 0
T. Adams	1,123 0 0
H. Farrow, Norfolk-street, Strand*	1,100 0 0

LONDON.—For fixtures, fittings, airtight cases, for Messrs. Pyne Bros., Lewisham High-road. Mr. Thos. Jay Evans, architect and surveyor, 61, Munster-road, Fulham, S.W. :—

Parkinson & Son	£815 0	Welham & Wilson	£557 0
Sage & Co.	806 0	Haskins & Bros.*	553 0
Pollard & Co.	561 10		

LONDON.—For reconstruction of bridge over North London Railway at Mildmay Park, N., for the London County Council :—

D. T. Jackson	£2,801 16 1
H. Elliott & Co.	2,547 18 3
T. W. Pedrette	2,520 16 6
J. Dickson	2,511 8 0
Rowlingsons & Co.	2,339 6 9
Dick, Kerr, & Co., Ltd.	2,258 9 10
W. Muirhead & Co., Ltd., Queen Victoria-street, E.C.*	2,238 3 0

[Chief Engineer's estimate, £2,130 12s. 9d.]

LONDON.—For metal shop front at 31, Old Kent-road, for Messrs. King & Edwards. Mr. T. Jay Evans, architect and surveyor, 61, Munster-road, Fulham, S.W. :—

Parkinson & Son	£309 5	Pollard & Co.	£309 0
Sage & Co.	305 0	Haskins & Bros.	298 15

LONDON.—For formation of new street from Smith-square to Tufton-street, Westminster, for the London County Council :—

W. Muirhead & Co., Ltd.	£2,683 19 10
W. Griffiths & Co., Ltd.	2,553 2 9
J. Dickson	2,250 19 9
H. Elliott & Co.	2,198 0 6
D. R. Paterson, Ltd.	1,955 17 0
J. Mowlem & Co., Ltd.	1,951 0 0
W. H. Wheeler & Co., Ltd., Blackfriars-road, S.E.*	1,802 2 1

[The estimate of the Chief Engineer, comparable with the above tenders, is £2,038.]

LONDON.—For extension of the southern high level sewer from Catford to Nunhead, for the London County Council :—

J. Mowlem & Co., Ltd.	£122,943 0 0
L. P. Nott	119,737 8 5
Monk & Newell, Ltd.	113,535 6 0
J. Pollok	110,341 12 2
R. McAlpine & Sons	107,145 5 4
J. Price	107,008 3 1
W. Muirhead & Co., Ltd.	106,133 19 6
Griffiths & Co., Contractors, Ltd.	103,409 0 0
Kinnear, Moodie, & Co.	100,953 13 7
W. Scott & Middleton, Ltd.	99,253 9 4
Westminster Construction Co., Ltd.	97,620 16 8
S. Pearson & Son, Ltd.	95,653 4 5
A. N. Coles	94,210 18 2
W. Underwood & Bros., Dukinfield, Cheshire*	88,396 14 9

[Chief Engineer's estimate, £102,113 11s. 8d.]

NEWCASTLE-ON-TYNE.—For twenty-five cottages, for Small Holdings Committee. The City Estate Surveyor, Town Hall, Newcastle-on-Tyne :—

S. Fenwick & Co.	£9,760 0 0
R. Ovens	8,824 5 4
Kirk & Brown	8,814 19 6
E. T. George & Son	8,600 0 0
W. Franklin & Son	6,563 18 11
Haswell & Waugh	6,465 0 0
S. Oake & Co.	6,436 12 6
R. & A. P. Tait	6,312 15 0
J. Craven	6,064 0 0
W. L. Harbottle	6,050 0 0
Exors. of E. Weatherley	5,995 0 0
G. Douglass	5,978 0 0
J. Carruthers	5,754 10 1
J. Douglass, Hepscott, Morpeth*	5,375 10 0

WORLEBURY.—For golf club pavilion. Messrs. Hans Price & Wm. Jane, architects, Weston-super-Mare :—

C. Penny	£963 15	G. Sprake	£860 0
C. Addicott	915 10	C. & E. Stradling	830 0
Wire-Wove Roofing Co.	900 0	G. & J. Stokes & Son, Weston-super-Mare*	805 0
S. Rodway	894 0		
H. J. Fear & Sons	874 10		

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